# ADULT BRAILLE LITERACY EMPOWERMENT PROJECT

**American Foundation for the Blind**
**11 Penn Plaza, Suite 300**
**New York, NY 10001**

## Final Report

By

**Evelyn J. Rex, Ph.D., Coordinator**
**Diane P. Wormsley, Ph.D., Project Director**
**Susan J. Spungin, Ed.D., Project Director**

**November, 1995**

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# ABSTRACT

The Adult Braille Literacy Empowerment project was undertaken by the American Foundation for the Blind to develop a Model Strategy for the instruction of braille literacy to blind adults. This was accomplished in a three-year project as follows:

> Year 1 -- October 1992-September 1993
> > Identification of the Model Strategy components
> > Development of Matrix of Variables Leading to Success in
> > > Braille Reading by Adults

> Year 2 -- October 1993-September 1994
> > Focus on Instructor Needs
> > Preparation of ABLE-Guidelines

> Year 3 -- October 1994-September 1995
> > Pilot study of ABLE-G
> > Dissemination of ABLE-G

The matrix of variables affecting the success of adults learning braille became the undergirding for development of the Adult Braille Literacy Empowerment Guidelines, ABLE-G. Materials were placed in eight sites for a six-months pilot study. The sites represented diverse settings for braille instruction to adults. Pre- and post-questionnaires were completed by ten administrators and sixteen instructors. Both questionnaires provided demographic information. The post-questionnaire provided qualitative information as to the usefulness of ABLE-G. These responses resulted in some revision and extensive editing.

Two hundred print or braille copies of ABLE-G were disseminated. An anticipated post-funding activity is to place the materials on Internet.

Adult Braille Literacy Empowerment

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# PREFACE

The American Foundation for the Blind affirmed its concern for the literacy of persons who are blind or visually handicapped when it established its National Initiative on Literacy in 1993. An early focus was on braille literacy, focusing first on children and then on adults. The adult population of persons who could be literate in reading and writing in the braille medium comprises the largest segment of the blind population. Unfortunately, too many of these persons have not become literate in braille. The Adult Braille Literacy Empowerment project (ABLE) reflects a concern for those persons, particularly those who lose their vision as adults.

Project ABLE was supported by a grant from the United States Department of Education, National Institute for Disability and Rehabilitation Research. The project began in October 1992 and ended September 30, 1995 with the dissemination of the ABLE-Guidelines.

The first year of Project ABLE was spent in identifying the components of a Model Strategy Program to provide braille instruction to adults. A Matrix of Variables Leading to Success in Braille Literacy was developed and became the cornerstone for materials developed during the second year of the Project. Those materials became the Adult Braille Literacy Empowerment-Guidelines, ABLE-G.

The ABLE-G is not a set of instructional materials. It is a set of guidelines to assist administrators and instructors to establish a new program in braille literacy or to continue such a program. The nine components of ABLE-G were developed so that each could be used separately. However, several components are closely related and can be used very effectively with one another. The ABLE-G contains:

- program guidelines
- case studies
- literature abstracts
- a review of curricular materials
- a review of braille access technology
- instructor objectives
- strategies to meet instructor objectives
- guidelines to develop proposals to fund literacy programs

During the final year of the project ABLE-G was piloted in eight centers. The centers were selected to represent the diversity of rehabilitation settings in the nation. The braille literacy program of one state, basically rural and state funded, made up one of the pilot sites. The Lighthouse programs of two large cities, one in the Midwest and one in the Southwest were included, as well as one municipal center in a large city and one private center in a suburban area. Libraries for persons with visual handicaps were included, one a large regional library and the other a private library with special federal

funding. The eighth pilot site was a university program which prepares rehabilitation personnel. Ten administrators and sixteen braille literacy instructors from these sites used, or reviewed, the ABLE-G for six months. They also responded to pre- and post-questionnaires, completed surveys, and responded to specific questions related to the ABLE-G. With this feedback, modification of ABLE-G took place.

Other persons assisted the ABLE staff in the project. A Consumer Advisory Panel took part in teleconferences and surveys for the three years of the Project. Personnel in university programs which prepare persons who will work as rehabilitation teachers or counselors of blind adults participated in teleconferences, reviews and surveys. Several consultants assisted in the development of specific products.

Responses from instructors and administrators presented interesting demographic information regarding braille literacy instruction as it is currently provided. The number of respondents was small so generalizations cannot be made with any degree of accuracy.

The Adult Braille Literacy Empowerment project has made major contributions to the enhancement of braille literacy among blind adults. Two hundred copies of the ABLE-Guidelines, in print, braille, or tape, were prepared for dissemination. Copies are also to be made available on Internet.

## Adult Braille Literacy Empowerment

## EXECUTIVE SUMMARY

The Adult Braille Literacy Empowerment project was based on the premise that literacy is an effective tool for empowering individuals. Reading and writing by braille is the literacy tool for empowerment of persons who are visually unable to use print. The overall goal of ABLE was to develop an Adult Braille Literacy Program which will allow adults who are blind or visually impaired:

> to become proficient in their use of braille,
> to do so in an optimum period of time, and
> to do so for a variety of purposes as determined by the individual learners.

## OBJECTIVES

Eleven major objectives and sixteen sub-objectives of the Adult Braille Literacy Empowerment project were identified in the original proposal (Appendix B). They have been accomplished during four phases of the three-year project. These phases were:

1) development of a model strategy for an Adult Braille Literacy Program
2) review and evaluation of selected technology and curricula for use in enhancing instruction in reading and writing braille
3) training of service providers to use the program model and, concurrently, to evaluate its usefulness
4) dissemination of guidelines for the Adult Braille Literacy Program.

Objectives for Phase 1 (Model Strategy) were:

1) Determine the components required of a literacy program for adults who are blind which will take into account the heterogeneity and cultural diversity of the population and the various learning sites at which instruction may occur. This objective included eight sub-objectives. (Appendix B)

2) Collect and analyze the curriculum materials which are currently being used for instruction in braille with adults in the United States. Objective 2 was comprised of five sub-objectives. (Appendix B)

3) Determine the attitudes toward braille which foster a desire in adults who are blind to learn braille and delineate negative attitudes which discourage learning of braille. This objective included two sub-objectives. (Appendix B)

Objective for Phase 2 (Technology) was:

4) Assess the usefulness of various prototype and technological devices that interface with computer screens to produce braille output as techniques to enhance literacy in braille. There were three sub-objectives. (Appendix B)

Objectives for Phase 3 (Training Service Providers, Evaluation of Model Strategy) were:

5) Develop training materials for pre- and in-service teachers and administrators in adult education institutions and rehabilitation facilities based upon the model strategy for the Adult Braille Literacy Program. Five sub-objectives were included. (Appendix B)

6) Provide training (using training materials developed in Objective 5) for teachers at a maximum of four different sites selected on the basis of their type of program.

7) Evaluate the training materials and the model strategy at the four sites.

Objectives for Phase 4 (Dissemination) were:

8) Provide presentations demonstrating the training and model strategy to at least four conferences and including changes made in the training materials and model strategy based upon the evaluations received from the training program sites.

9) Publish at least one article on the project in the <u>Journal of Visual Impairment and Blindness</u> and submit another for publication to other appropriate journals.

10) Disseminate results of project through AFB Regional Newsletters.

11) Finalize training guidelines for dissemination as a pamphlet to be distributed to the various participants of the project, and through the AFB publications department after the project is finished.

## RESULTS

<u>Model Strategy Development.</u> The model strategy was developed upon completion of three major objectives and several sub-objectives. Major results included:

* Identification of individuals to serve as members of a consumer advisory panel.
   By the end of the first year 15 persons were serving as members of the CAP and two teleconferences had been held (Appendix D). Six teleconferences were held during the three years of the project.

* Identification of consultants to assist ABLE staff in a variety of tasks (Appendix D).

* An extensive review of research and literature.
  A variety of topical areas were assigned to appropriate members of the ABLE staff. (Appendix G-1)  This activity continued through the first year of the project.

* A matrix of variables contributing to success in learning braille by adults.
  Several sources were involved in identification and verification of these variables, over 200 who were eventually reduced to approximately 50.  (Appendix F)

* Review of texts commonly used in the instruction of adults learning to read by braille.
  A consultant and a staff member conducted the review.  A four-page summary of general information was prepared for the Model Strategy and later became a component of the final product.  (Appendix J)

* Survey of university personnel in programs to prepare rehabilitation teachers and. counselors.
  A survey of texts used by university programs to prepare future instructors in braille literacy revealed a number of texts, some more commonly used.  (Appendix I-2)  Respondents participated in a teleconference to further discuss their programs and to provide pertinent information regarding a model strategy.

* An objective related to "attitudes toward braille" was modified as the project progressed.  The major consultant, a researcher in the area of rehabilitation particularly braille literacy, felt that such information already exited.  The literature supported the researcher's recommendation. Information related to attitudes was woven into several components of the project, such as  an Individual Profile completed by CAP members (Appendix E) and other blind persons.  Attitudes were also addressed in the matrix, Factors in Achieving Success in Braille Reading.  (Appendix F)

Technology Research Review.  This phase of the study occurred late in the first year and continued into the second year.  AFB staff provided a comprehensive review of hardware and software currently available for literacy instruction.  A lengthy summary was prepared for the Model Strategy Program and later became a component of the final product.  (Appendix K contains sample pages).

Training Service Providers/Evaluation of Model Strategy.  Early in Year 2 of ABLE, staff and consultants began development of the nine sections of guidelines for use by administrators and instructors in adult braille literacy programs.  The result was the pilot edition of the ABLE-G, the final product of the Adult Braille Literacy Empowerment project.  Chart 8 presents an outline of ABLE-G.

The ABLE-G was placed in eight sites for use and review.  Sites were selected to provide diversity of settings (Appendix N).  Instructors used the Guidelines for six months--November 1994 through April 1995.  They instructors used ABLE-G in whatever way seemed most appropriate for their clientele.

Section III of ABLE-G presented Instructor Objectives and provided a checklist to rate one's adequacy in each objective, as well as its relevance in his/her situation. Six instructors returned their checklists. No particular pattern of adequacy or inadequacy seemed to emerge from these six responses. While not statistically computed the relevance of objectives was directly related to the instructor's adequacy in that objective. Instructors were also asked to select two objectives in which they felt a need for greater competency. Strategies for improvement were presented in Section IV of the guidelines. Their involvement was voluntary and anonymous. The same six instructors responded. The objectives selected are presented in Appendix V.

Prior to the beginning of the pilot study, administrators and instructors completed a pre-questionnaire (Appendix K) which provided information related to the agency, literacy staff, students and other pertinent information. Information provided by personnel at the eight sites is presented in Appendix P. Following six months of use participants completed a post-questionnaire. (Appendix O) It contained several items related to the ABLE-G materials.

The ABLE-G materials were revised based on comments and suggestions from the participants. Some revision was also made based on the judgment of ABLE staff. Major revision included deletion of the Relevance item on the Objectives checklist since it provided very little information. The decision was also made to eliminate the Appendices. Cost of one component was prohibitive. Another was undergoing major revision and the third seemed to promote one strategy over others which was not the intent. Major editing was done following the pilot study and changes in format took place.

Dissemination. Appendix Z presents a list of presentations and publications resulting from the Adult Braille Literacy Empowerment project.

Upon revision of the ABLE-G, 200 copies were disseminated in print and/or braille. Approximately 175 print copies were prepared in the Atlanta office of the AFB National Initiative on Literacy and 25 braille copies were prepared by Braille International Inc. Notices regarding availability were mailed to rehabilitation directors in each state, participants in AFB Mentors-in-Training workshops, university personnel in programs preparing teachers and counselors of children and youth who have visual disabilities, and others. As a post-grant activity, ABLE-G is being prepared for inclusion on the Internet system.

PROJECT SIGNIFICANCE

Significance of the Adult Braille Literacy Empowerment project is difficult to determine at this point. The sites which took part in the pilot study represented both the public and private sectors. The significance to those eight sites is in the higher level of awareness which now exists for both instructors and administrators. Whether that increased awareness will result in policy changes and program changes is unknown. Further awareness should become evident with the use of ABLE-G by those who will now have access to the materials through its dissemination. Significance should also increase when instructors and administrators have more than the six-month period of time to utilize the ABLE-G.

# RECOMMENDATIONS

It is recommended that:

1. The American Foundation for the Blind continue its National Initiative on Literacy with continued services and projects.

2. There be continued support for university programs which prepare teachers and counselors to function in rehabilitative agencies.

3. Efforts be made to select instructors with adequate knowledge and/or background in the education of adults.

4. Efforts be made to select instructors with adequate knowledge and skill in the braille codes.

5. Efforts be made to select instructors with adequate knowledge and/or background in the teaching of reading and writing.

6. Efforts be made to select administrators with adequate knowledge and positive attitudes concerning the various literacy needs of blind adults.

7. In-service training be provided for those instructors and administrators who do not have adequate preparation when employed.

# INTRODUCTION

There are approximately 3.3 million adults in the United States who are blind or visually impaired. Some were born blind and learned to read during their school years. As blind children they may have learned to read and write using braille as their literacy medium. Others who needed to use braille did not learn to read for a variety of reasons. Some had small amounts of vision, enough to use print as children, but gradually lost vision as they grew older. These congenitally blind individuals may now function as illiterate adults. The adult population who are adventitiously blind may no longer be literate in the print medium they once used, while some may not have been literate in print.

## Rehabilitation Needs

The Adult Braille Literacy Empowerment project focused on the rehabilitation needs of five groups of blind adults:
* adults who are adventitiously blinded who have not been literate,
* adults who are adventitiously blinded and who have previously been literate,
* adults who are congenitally legally blind who have been literate in print but can no longer read print and do not know braille,
* adults who are congenitally legally blind who have never been literate in print or in braille,
* adults who belong to a variety of ethnic groups and educational backgrounds.

The ABLE project also focused on the needs of:
* trainers, counselors, teachers in various rehabilitation, educational and community settings who will be implementing adult braille literacy programs.

## Project Design

Adult Braille Literacy Empowerment was a three-year project, managed by the American Foundation for the Blind and funded by the National Institute of Disability and Rehabilitation Research. Implementation of the project included: (1) Development of model strategies for a state-of-the-art adult braille literacy program, (2) Development of training materials used in a brief pilot study by a variety of service providers, and (3) Broad based dissemination activities for information gathered and guidelines developed over the three-year period (Chart 1).

The goals and objectives of Project ABLE (Appendix B) were accomplished by teams of experts in braille literacy and specialists in the field of employment, aging, and technology--key areas for the adults who will be most affected by the results of Project ABLE. The project team included a core of three positions: project director, coordinator, and secretary/program assistant. There were three different project directors and three different program assistants. The part-time coordinator was the one constant factor in the core during the three-year project. Five AFB personnel had small fractional assignments throughout the project and five consultants made major contributions to the project (Appendix C). Critical to the implementation of Project ABLE was a

Consumer Advisory Panel (CAP) (Appendix D). The CAP was composed of various individuals, blind or visually handicapped, who provided their perspective to various stages of program design, surveys, and other activities during the three years of the project. During the first year the project team was based at AFB headquarters in New York with the coordinator housed in Illinois. The AFB regional office in Atlanta became the project center during the second and third years with the Illinois office continuing to participate.

The project was successful due to excellent communication throughout the three years. Within the first month the core team, participating AFB staff, and two consultants spent three days together in New York. Such sessions were held each year. The project director and the coordinator also worked together for two or three days preceding major conferences, two or three annually. In addition, the coordinator spent one full week in the Atlanta office each year.

Weekly teleconferences were scheduled between the director and the coordinator. Pertinent team members and consultants participated when needed. Communication was enhanced by frequent faxing of materials.

The grant proposal identified specific tasks and time lines for each of the four phases of the project. At the first meeting in New York core staff developed detailed work plans for Year 1, assigning tasks and the method of implementation. Needed revisions took place at the next meeting, or by phone or fax. The same method was used prior to Years 2 and 3.

The project was successful in spite of the rather complicated set of Objectives and the long distance operation in meeting those objectives. The three years of activity culminated in production of Adult Braille Literacy Empowerment Guidelines, the ABLE-G. Its use by rehabilitation personnel should raise the quality of braille instruction, thereby increasing the number of literate adults who are blind or visually impaired.

## REVIEW OF LITERATURE AND RESEARCH

### Introduction

The Adult Braille Literacy Empowerment (ABLE) Project was designed to be reflective of opportunities for citizens of this country to become full participants in all aspects of life, and throughout the life stages. Accomplishment of this task requires a great understanding of the reading and writing processes and careful consideration of the learning factors that affect each individual. For approximately 3.3 million adults in this country who are blind or visually impaired, literacy includes skills in reading and writing braille. It is through the development and implementation of a comprehensive braille literacy program that adults who are blind and visually impaired may be afforded equal opportunities to be self-reliant, empowered, and contributing members of society.

### Literacy

The topic of literacy has received much attention during the past 25 years, reaching great momentum in the past decade. In 1985 it was estimated that 60 million adults were functionally illiterate (Beder, 1991). Some research and considerable literature has appeared as a result of concern at such statistics (Venezky, Wagner and Ciliberti, 1990; Radencich (Ed.), 1994). Adult Basic Education (ABE) programs began to emphasize literacy in their community programs. Instruction in English as a Second Language was spawned in response to the nation's concern for literacy and for the growing number of non-English speaking persons in our country.

Literacy was, and is, defined and viewed as more than "the ability to read and write." It continues to be viewed as developmental, cultural, and social, as well as knowledge based (Anderson, Hiebert, Scott and Wilkinson, 1985; Newman and Beverstock, 1990). Stages of literacy were identified by such terms as *emergent literacy, extended literacy, and adult literacy.*

It followed naturally that the concern for literacy should focus on educational programs. The teaching of reading and writing was scrutinized and took new directions. Instruction moved from skill-based approaches to meaning-based approaches. Reading and writing were not viewed as separate subjects in the school curriculum but as a joint unit of literacy instruction ( Goodman, 1970; Carbo, Dunn and Dunn, 1986; Leu & Kinzer; 1991). National studies took place and national goals were established (Anderson, Hiebert, Scott and Wilkinson, 1985; National Education Goals Panel Report, 1991; America 2000: An Education Strategy, 1991). While the focus was on instruction of children, the goals, changes, new instructional texts, and increased literature has implications for adult literacy.

The concern for braille literacy also grew naturally. However, literature and research in the field decreased substantially by the late 1970's. Braille literacy had taken on an additional dimension. Fewer legally blind children and adults were being instructed in braille literacy. Children with low vision were using print but some, on reaching adulthood, had lost vision or could not physically handle large amounts of print reading and writing materials. They were now partially or totally

illiterate until they received braille literacy instruction. Other adults lost vision as they aged. They, too, became partially or totally illiterate unless they received braille literacy instruction.

By the mid 80's consumer agencies and the schools had become quite concerned about the dim picture of braille literacy (Rex, 1989a, Rex, 1989b). To some extent literature on the topic flourished. Much of it related to the issue of selecting the appropriate literacy medium or media (Mangold & Mangold, 1989; Koenig and Holbrook, 1989). Koenig (1993) developed a framework for understanding the literacy of children and adults who are visually impaired. That framework viewed literacy in light of the stages mentioned above. It also viewed literacy in the multifaceted way in which it is now defined. The implications of that view of literacy should have major impact on adult braille literacy since the need for cultural and social literacy are rather easily identified by the adult learner.

Research related to braille literacy is increasing gradually as evidenced by Erin & Sumranveth (1995), Hamp & Caton (1984), Pester (1993), Wittenstein (1993), and other references cited in the Appendix. Both literature and research relate primarily to braille literacy of children and youth. Emphasis tends to be on literacy instruction. A recent textbook is the first to focus on braille literacy in the context of current literacy approaches. (Rex, Koenig, Wormsley, and Baker, 1994).

The dearth of literature and research alerts the field to the need to increase the focus on adult braille literacy. The American Foundation for the Blind responded to this need by establishing its National Initiative on Literacy. The Adult Braille Literacy Empowerment project, implemented by AFB, contributes to both the research and literature.

## Adults and Employment

The question of literacy for visually impaired adults and its impact on employability is an issue of great concern to the field (Schroeder, 1989; Spungin, 1990). Six hundred thousand individuals between the ages of 18-69 are visually impaired with limited work activities; 405,000 are unemployed and 195,000 are underemployed. The use of braille, low vision devices, or technology as a means of accessing print information varies among individuals according to visual status, knowledge of options, access and instruction (Koenig & Holbrook, 1989). The degree to which any of those factors impact upon the various levels of employment is only now to being researched in a consistent way. Mississippi State University, Rehabilitation Research and Training Center on Blindness and Low Vision will soon complete a five-year study which includes this issue.

Although audio devices and readers rank high in preferred reading media for many individuals who are severely visually impaired, studies also indicate the importance of braille skills to workers. A Braille Survey (1983) by the Library of Congress indicated that 59% of braille users were employed or retired from previous work. This is significantly higher than the often stated blindness employment statistics. A more recent study (Kirchner & Harkins, 1991) found similar findings. Individuals who are employed are more likely to use braille than those who are not employed, but want to be. The degree to which other factors, e.g. education, age of onset, overall literacy level affect this issue is yet to be determined. However, the ability to have braille literacy as an option in work settings could be a critical factor to on-going or enhanced employability.

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The usefulness of various types of on-the-job braille skills is high and can result in greater independence to complete one's job, control of reading speed, instant review and efficiency. The braille skills reinforce a sense of competency for the individual, oftentimes resulting in greater productivity. Basic and enhanced skills in braille can provide greater fiscal opportunities and maximize employment outcomes for individuals who have experienced limited earning power.

Braille skill development also relates to the employee who may become visually impaired later in his/her career. Job retention and continued advancement/opportunities, given the presence of a visual disability, is a critical area of need. Braille can be an effective communication tool for both job retention and maintenance of independent living especially for the older, and still employed, visually impaired professional individual. Development of on the job note taking and alternative labeling of materials and files can create opportunities for continued work for a newly blinded person. Limited work has been done to determine the needs of this newly blind individual as related to braille skills within the context of various types of job situations. Providing adequate training materials and strategies will help preserve a work force which is capable of contributing for many years by learning additional reading and writing skills.

## Older Blind and Visually Impaired Persons

In 1990, over 31 million Americans were over the age of 65. This number is expected to double by 2030 when the last members of the baby boom generation will reach their later years (American Association of Retired Persons, 1991). There are already 2.7 million older Americans whose vision loss is severe enough to interfere with access to printed materials and independence in activities of daily living. By 2030, the number of older visually impaired persons will double to approximately 6 million. The elderly cohort represented by those 85 and over is the fastest growing segment of the elderly population. One in four of this group is severely visually impaired (Crews, 1991; Nelson, 1992).

These statistics and projections are staggering and have critical implications for researchers, policy makers, program planners and service providers in the fields of aging and blindness. Access to comprehensive rehabilitation service is essential if older visually impaired persons are to live as independently as possible and to avoid premature and unnecessary institutionalization (Orr, 1992). Braille is a critical component of that comprehensive rehabilitation process for many older persons.

Far too often, newly visually impaired older persons do not have access to learning braille within the traditional rehabilitation system. Many are told by rehabilitation personnel that learning braille is unnecessary in this era of "talking technology," or that it is too tedious and time consuming to teach or to learn. Older persons then learn that they are perceived by others, and begin to perceive themselves, as "less able" or "unable" to learn new skills. They lack the opportunity to try or to determine their capabilities for themselves.

Rehabilitation agencies, with personnel shortages and extremely limited service dollars, struggle to provide even basic training in independent living skills to older persons. Such skills would enhance their ability to live independently within their own homes and communities. Even agencies with Title VII-C funds have not given priority to teaching braille as part of their basic survival skills package. Many VII-C funded agencies use these funds to provide communications skills

training. Of the seven defined categories of service under VII-C, skills taught in this service component typically relate to teaching the use of adaptive equipment with speech output such as talking book machines and clocks.

There has been an overwhelming decrease in this country in the teaching of braille to both congenitally and adventitiously blind and visually impaired children and adults, that has ramifications for the largest and fastest growing segment of the blind and visually impaired population--older persons in the process of losing their vision. Age as a single factor does not decrease an older person's capacity to learn. This has been demonstrated by national efforts to promote lifelong learning opportunities and research. National research foundations on aging, such as the American Association of Retired Persons's (AARP) Andrus Foundation, have given priority to funding studies which assess the literacy levels needed by older persons to function in various environments. National organizations such as the National Council on Aging (NCOA) and the American Society on Aging (ASA) recognize and promote improvement of the literacy rate of older Americans. These organizations recognize that braille literacy is and will be increasingly important to older persons as they experience severe vision loss.

Many older visually impaired persons express interest in the opportunity to learn grade one and/or grade two braille. Braille, particularly grade one braille, can serve as an essential independent living skill for note taking and labeling purposes, providing the older visually impaired person with access to information without relying on a sighted person for assistance. Braille can be used for maintaining phone numbers, receipts, and for labeling medicine bottles, canned goods and other items, matching clothing items, and an array of other uses. The use of jumbo braille is a distinct advantage for older persons with decreasing sensitivity in their fingertips due to neuropathy or other causes.

Investigation of appropriate training materials for teaching braille skills to older adults is needed. Investigation is needed also to combat the pervasive attitude that the learning of a new skill, such as braille, is not "impractical, a waste of time given a shortened life expectancy, too difficult. Personnel in rehabilitation centers, other professionals, family members, even older persons themselves often have these false impressions.

Advocacy for older blind and visually impaired persons calls for comprehensive and holistic rehabilitation where braille must be included as an option in communications skills training. Braille literacy can serve as an independent living skill, as well as a life-enhancement skills at this stage of the life cycle when the pool of options and opportunities begins to diminish.

**Research in Braille**

Complexity of the braille code and problems inherent in reading braille (Hampshire, 1976) are a concern in on-going discussions. The hallmark work of Nolan and Kederis (1969), Hill and Bliss (1968) related to tactual perception of braille, continues to be used as the basis for understanding tactual discrimination and for enhancing the reading rate of braille for individuals.
Research has expanded beyond tactual instruction in braille to consider other critical areas as well: working distance from the page, portability of reading skills, reading rates, accuracy and visual fatigue (Mangold, 1989; Spungin, 1990). Professionals recognize that learning braille is dependent

upon many factors which are personally and environmentally based. In addition, research in the area of braille learning has made professionals acutely aware that development of braille skills is also dependent upon sufficient opportunities to practice learned skills in "real situations."

## Technology

Technological advances in the production of braille over the past few years has greatly enhanced availability and user accessibility. Computer and speech technology have opened new options for braille users who can now word process in braille, edit braille text, and convert to hard print or braille copies. This is a significant step toward enhancing literacy through technology.

Increased access to print materials in alternative formats such as braille is a result of technological advances and advocacy efforts in the public and private sector, i.e., passage of the Americans with Disabilities Act.

## Training and Outreach

Work in the broader literacy arena alerts us to the importance of developing competencies and learning tools which are designed in an individual's community of practice, in isolation (Wenger, 1991). It is imperative in designing literacy instruction that we appraise realistically what that literacy can offer, as well as assess other factors (e.g. social, attitudinal, time/space, etc.) which need to be considered if conditions or skills are to be improved. Wenger (1991) points out that if we view skills only as individual abilities, we overlook important social components of work and life such as membership in the broader community which is a primary motivator for learning.

To much of society braille is a symbol of blindness, a handicap, less than able (Caton, 1991). Development of training programs which provide various types of braille skill development (to various individuals who can benefit from this area) should include strategies to overcome these negative attitudes. One of the ways this can be accomplished is through development of training programs that are flexible enough to meet individual needs, e.g., self-study, course work in community programs, mentor relationships. For example, opportunities to enhance braille literacy for older newly visually impaired person may occur within or outside the traditional rehabilitation environment. Effective teaching and learning environments include agencies for blind and visually impaired persons, as well as general senior citizen centers, or even Elderhostels.

Braille literacy training for adults should expand to community outreach programs which have developed in the general adult literacy initiatives. Libraries, including specialized libraries for the blind and physically handicapped, have become involved in providing instructional materials and resources for literacy activities and in actually sponsoring various types of community programs. For example, in 1989 the Cincinnati regional library established a "braille literacy" program which invited readers who wanted to learn braille and readers who felt they could teach the system. The library supplied the needed learning materials, the space, and the "match" of teacher-student pairs. Similar types of ideas are being discussed at the New York Public Library for the Blind and Physically Handicapped. A survey of "braille experts" were asked their views and recommendations related to the various components and directions for an adult braille literacy program through the library system. There was an overwhelmingly positive response to this

concept. It was felt that individuals who were seriously visually impaired would participate in this type of program. Family and friends would have an opportunity to feel comfortable enough to participate as well (Wolfe, 1992). In many ways, libraries are viewed as "neutral environments" with no stigma of "difference" attached to them.

A variety of innovative training and support mechanisms which take the learning of braille by adults into the home and home communities should be explored. Strategies can be developed to implement such programs. Consumers in various communities will seek training in braille at a variety of levels. Development of instructor competencies by professionals who work in these and other traditional blindness settings should take place, particularly braille skills if not already attained. It is this area of research interest that appears to be of significance, especially as related to adults (Luxton, 1993). Assistance is needed to ensure that instructors are positively motivated toward the teaching of braille to all individuals, regardless of age, and have the competency and resources available to them to make that a reality.

# METHODOLOGY

## Introduction

The methodology of the Adult Braille Literacy Empowerment project was quite complex. It cannot be defined or described in a manner that is commonly used. No two of the 11 objectives and 16 sub-objectives were treated in the same way. Even the research team and the settings in which the project was carried out were somewhat unique, as indicated in the Introduction of this final report. The methodology will be reported by the three major phases of the ABLE project: (1) Development of model strategies for a state-of-the-art adult braille literacy program; (2) Development of training materials used in a brief pilot study by a variety of service providers; (3) Broad based dissemination activities for information gathered and guidelines developed over the three-year period.

## Model Strategy Development

A variety of activities and methods were utilized to identify the components of a model strategy program. Chart 2 presents:

* the nine activities,
* the staff members responsible for each activity, and
* the time of proposed completion of the activity.

1.1.4. Matrix of variables in learning braille. The matrix was the cornerstone of the model strategy. As a construct, it influenced every activity and product of the first year, and information from each activity and product was incorporated into it. Methodology involved:

(1) Identification of variables,
(2) Classification of items,
(3) Development of a check-list format,
(4) Validation of the variables,
(5) Piloting of the variables

In Steps 1 and 2, over 200 variables were identified and placed in seven categories. Core staff then converted the initial set of items to approximately fifty variables. Sources included:

* the review of literature
* the first teleconference of the CAP
* individual profiles (Appendix E) of CAP members and others
* ABLE staff and consultants

The AFB Social Research department placed the variables into a check-list format to complete Step 3.

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Step 4 involved validation of the matrix, Factors that May Affect Success of Adults Learning Braille (Appendix F). Validation strategies included:

* Review by a panel of ten experts in braille literacy,
* Final review by CAP members,
* Review by ABLE core, support staff, and consultant,
*. Review by AFB National Initiative on Literacy Task Force,
* An ad in a Rehabilitation newsletter to solicit consumer validators.

In Step 5 the checklist was submitted to 25 volunteers attending the July 1994 AER meeting in Dallas.

1.1.1 Literature/program review. Dr. Hilda Caton, project director of a NIDRR grant related to braille literacy and beginning at the same time as ABLE, met with the core staff to determine that the two projects not duplicate one another's efforts but might assist one another. Each project included a review of literature. ABLE core staff, AFB supporting staff and Dr. Caton participated in the literature review. Methodology included:

* ERIC searches at AFB and Illinois State University
* Assignment of topical areas (Appendix G1) and
* Development of a reporting form (Appendix G2) to include:
   Bibliographic data
   Brief abstract
   Matrix variables identified.

1.1.2 Consumer Advisory Panel and 1.1.3 Consultants. Both of these items involved selection of key persons to work with the staff. Criteria for selection to CAP membership included:

* Representation from the five AFB regions
* Representation of various visual abilities and etiologies
* Representation in diversity of populations: racial, ethnic, age, sex, education, profession (Appendix D).

Criteria for selection of consultants related to the needs of the project. Consultants were chosen to assist in specific areas, ones in which they had demonstrated their expertise (Appendix C).

1.1.5 Collect training materials. It was decided that methodology for this item should be limited to a flyer requesting response to materials and equipment used (Appendix H). The collection of materials seemed inappropriate and raised the question of storage by the project. It also appeared that the major items were included in 1.1.7. Results were to be shared with Caton.

1.1.6 University programs. Seven funded programs which prepare rehabilitation teachers and counselors participated in the identification of components of a model strategy program. The methodology to achieve this goal included:

* Survey of the university program
* Identification of texts used to prepare university students
* Participation in a two-hour teleconference (Appendix I)

1.1.7 and 1.1.8 Review curricular materials. The methodology for this goal was determined when the ABLE staff learned that a rehabilitation teacher and graduate student was working on a review of texts used in instruction to adults learning to read by braille. Her methods included:

* Development of a review format,
* Validation by a panel of experts,
* Selection of texts,
* Completion of the reviews,

She had completed the review of several texts or programs. The ABLE project hired her as a consultant. Additional items were added to the review process. The consultant had not yet reviews two major programs which had been identified by ABLE in the grant proposal. Those reviews, Read Again and Step by Step, were done by project staff. All of the programs/texts were then analyzed for key content areas and a summary of general information of the 19 texts was developed (Appendix J)

1.1.9 Learner strategies. The learner is the literacy instructor. It was decided that the strategies should be linked to the learner competencies to be identified in the next phase. The methodology of both will be included in the discussion of the Training phase.

1.2 Technology review: This task was addressed first by AFB staff in the National Technology Center. The Center is involved in: (1) product research, (2) product testing, (3) product evaluations, and (4) information services.

An ABLE consultant/intern developed the methodology:

* Review the available information
* Determine attributes to be included
* Develop format for a graphic presentation
* Input information (Appendix K)

**Summary**

The methodology for the model strategy program included surveys, teleconferences, questionnaires, and a variety of other activities. The diversity of the above activities is somewhat overwhelming. The information derived was assessed carefully and included when it was appropriate to do so, based on both qualitative and quantitative information.

2.0.1 Trainer competencies. Methodology for this activity utilized the competencies developed by AER Division 11-Rehabilitation. The sequence of tasks involved:

* Review of complete set of AER competencies
* Selection of competencies to be included
* Categorize competencies into five areas:
  - Acquiring Braille and Computer Skills
  - Providing Programs for Braille Literacy
  - Becoming and Being a Professional
  - Utilizing Teaching Strategies
  - Utilizing Assessment Strategies

2.0.2, 2.0.3, 2.0.4 Learner objectives. Methodology involved:

* Translate competencies into learner/instructor objectives
* Place objectives into checklist format
* Add a dimension of instructor adequacy
* Add a dimension of relevance of objective
* Include checklist in training materials (Appendix L).

2.0.5. Instructor/learner strategies. Strategies were designed for instructors' use by self-study to improve competencies. A set of strategies was developed for each instructor objective to be included in training materials (Appendix M).

Additional materials were developed to complete the training materials. The materials were titled Adult Braille Literacy Empowerment-Guidelines, and became known as the ABLE-G. It contained nine sections:

| | |
|---|---|
| * How to Use the ABLE-G | Prepared by ABLE staff |
| * Program Guidelines | Developed by ABLE staff |
| * Instructor Objectives | Adapted by ABLE staff |
| * Strategies for Acquiring Instructor Objectives | Developed by ABLE staff |
| * Annotated Bibliography | Written by ABLE consultant |
| * Review of Braille Curriculum Materials | Prepared by ABLE staff and ABLE consultant |
| * Review of Braille Access Technology | Prepared by ABLE staff and ABLE consultant |
| * Case Studies (Interviews) | Developed by ABLE consultant |
| * Creating a Proposal | Prepared by ABLE staff |

2.0.6. Piloting the training materials. Eight sites were selected for a six-month use of the ABLE-G. Sites were selected for their diversity of regional location, type of organization (Appendix N).

2.0.7. Pre-questionnaires were developed by the Social Research department of the AFB. The questionnaire to ten administrators (Appendix O-1) focused on demographic information related to their agency. The questionnaire to instructors (Appendix O-2) focused on personal information related to braille literacy, their programs and instruction. Following completion of the six-months use of ABLE-G post-questionnaires were sent to administrators (Appendix O-3) and the sixteen instructors (Appendix O-4). They requested information similar to the pre-questionnaires. Additional items served as an evaluation of ABLE-G.

**Dissemination - 3.0**

3.0.1. Finalize materials and disseminate 200 copies. Methodology for this activity included:

* Request bids for preparation of braille copies
* Content analysis of post-questionnaires
* Revision of ABLE-G based on the analysis
* Revision of ABLE-G based on staff discussion and judgment
* Extensive editing of the various components
* Select braille printer and develop contract
* Preparation of final copy by ABLE staff
* Preparation of multiple print copies by the Atlanta center
* Preparation of braille copies by Braille International
* Mail notices of availability of ABLE-G
* Develop mailing list for dissemination
* Disseminate 200 copies in print, braille or cassette
* Prepare copy for Internet

3.0.2. Network and present findings at national conferences.

* Attend Josephine Taylor Leadership Institute in 1993, 1994, and 1995,
* Make presentations at two national conferences in July 1994 and December 1995
* Produce four articles for publication  (Appendix Z)

## Introduction

As the section on Methodology indicated, the ABLE project was a very complex undertaking with many sources of data and information. This complexity is also evident in the analysis of the data gathered and in reporting the results. The results are presented using the same code that was noted for each activity discussed in the Methodology section. The Appendices section is quite voluminous, reflecting again the complexity of Project ABLE.

## Model Strategy Program

1.1.1 Literature Review. Most of the literature reported by ABLE staff related to Literacy, Adult and Braille. The literature reviewed is reflected in many components of the ABLE project:

*   Review of Literature presented earlier in this report,
*   References in Review of Literature (Appendix A)
*   Matrix of Factors that "Affects Success in Learning Braille By Adults Who Have Become Blind or Visually Impaired" (Appendix F)
*   Sections of the Adult Braille Literacy Empowerment Guidelines, the ABLE-G:
    Section IV -- Strategies for Acquiring Instructor Objectives
    Section V -- Annotated Bibliography

Other results include:
*   Influence and support in decision making by the ABLE staff, i.e. decision to omit objectives and tasks related specifically to Attitudes.

*   Motivation to visit the US Office of Adult Education by core staff while in Washington. Publications were made available for ABLE and, eventually, the AFB National Initiative on Literacy.

*   Motivation to purchase subscriptions to professional journals:
    (1) Journal of Reading,
    (2) Reading Research Quarterly,
    (3) The Reading Teacher,
    (4) Several books on literacy which were cited in the Review.

These purchases helped staff to continue to review the literature on literacy during the final years of the project.

1.1.2 Consumer Advisory Panel. The CAP was comprised of fifteen members by the midpoint of the project. Six teleconferences provided objective feedback and suggestions as to the various ABLE activities (Appendix C). Eight of the members complete the Individual Profile (Appendix E, or Chart 7).

1.1.3  Consultants.  Consultants contributed to the following:

* Guidance during Year 1 of the project
* Review of curricular materials
* Annotations for the bibliography
* Interviews for the case studies
* Coordination of proof reading activities to
  synchronize print and braille copies of ABLE-G

1.1.4  Matrix development.  The final activity related to the matrix and its checklist should have resulted in quantitative results.  However, there were no responses to the distribution of 25 copies of the checklist.  There was no reminder or follow-up communication.

1.1.5  Survey of training materials and equipment.  There was minimal response to the flyer.  No materials or equipment were noted which ABLE staff was not already aware of.

1.1.6  University programs.  Results of the survey of the seven university programs (Appendix H-1) are reported in Appendix H-2.  There is a great deal of similarity in degrees granted and in the overall program.  There are considerable differences in the texts used for braille literacy.  An unexpectedly large number of texts were identified with several rather out-of-date.  Detailed results are presented in Appendix H-3.

1.1.7 and 1.1.8  Review of curricular materials.  Appendix J lists the 19 texts reviewed and presents one page of the summary of general information.  That four-page summary is included in the ABLE-G.  This component ranked high on most items in the evaluation of ABLE-G.  It was also well received when it was disseminated to the Mentors-in-Training workshops in 1994.  The review has also generated the purchase of additional texts in several centers.

1.1.9  Learner strategies.  Results of this component of the project are discussed in Training Service Providers.

1.2  Technology review.  Appendix K lists approximately 50 items of braille access hardware and software.  A sample page of the review is also presented.  The full review is included in ABLE-G.  This component of ABLE-G was well received by instructors and administrators involved in the pilot study.

**Training Service Providers**

2.0.1  Trainer competencies and 2.0.2, 2.0.3, 2.0.4.  Instructor or learner objectives.  A result of the activity to identify learner competencies is its inclusion in the ABLE-G.  The Instructor Objectives section included two checklist items:  Adequacy and Relevance.  None of the administrators responded to the checklist of competencies.  Six of the instructors in the pilot study did rate themselves as to their adequacy in the many objectives and also rated the relevance of the objectives.

Most instructors rated themselves as adequate on items related to basic braille skills but inadequate in computer skills. Most also perceived themselves as lacking adequacy in most items in the other four categories. Since the number was so small no attempt was made to analyze the results statistically. Good qualitative information was provided as to the competency of rehabilitation instructors.

The instructors tended to rate items as relevant if they had rated themselves adequate in competency. The relevance dimension provided so little information that it was eliminated from the revised version of ABLE-G.

The post-questionnaire to instructors asked them to identify two objectives they had selected to work on, utilizing the strategies identified for those objectives. Appendix V presents a list of the twelve objectives selected. Most selected objectives related to braille skills or computer skills.

2.0.5   Instructor/learner strategies. This item was included in the ABLE-G. Its components corresponded to the learner objectives. Appendix L presents a section of the objectives and Appendix M presents the corresponding strategies.

2.0.6   Pilot the training materials. The ABLE-G materials were placed in eight sites for use and for evaluation. Appendix N presents demographic information. A pre-questionnaire (Appendix O) revealed a wide range of preparation, from three with no training to five with training in programs to prepare rehabilitation personnel. Their years of experience ranged from three with one year's experience to two with over 20 years of experience. Appendix Q presents details related to preparation and experience, as well as reading medium and competency in the braille codes.

Appendix R provides information regarding the agency's literacy program and Appendix S relates information on referral policy and records.

2.0.7   Evaluate results of ABLE-G pilot program. Pre- and post-questionnaires (Appendix O-1,2,3,4) were completed by instructors and administrators in the eight pilot sites. The return rate by administrators was 90 percent. Return rate of instructors was 80 percent. Most participants needed prodding to return their questionnaires, some needing extensively reminders by letter and phone. There were three participants who did not complete the questionnaires, one in a site which never truly became involved and finally withdrew from the ABLE project. Appendix O-5 presents a summary of returns.

Hindsight reveals that the questionnaires were poorly constructed. Participants were not pleased that most of the items on the first questionnaire were repeated on the second within such a short period of time. There were almost no differences in individual responses to the two sets of questions. Content analysis was the major method of reporting the data. Some items could be reported in a quantitative fashion. The extensive amount of data is presented in graphic format in Appendices V through Y. The data covers such dimensions as the usefulness of the ABLE-G, its impact on individuals and on the literacy programs, and future use of the Guidelines.

The overall evaluation of ABLE-G as a set of self-study materials in various settings was positive. One participant was consistently negative in all responses. Most instructors wished that the pilot study had been of longer duration. Their awareness was heightened and they appeared motivated to continue to improve their competency as instructors in braille literacy. They cited several sections, such as the strategies by which they could achieve competency.

Responses to ABLE-G evaluation items in the post-questionnaire provided sufficient comments and suggestions to warrant revision of the ABLE-G. Major revision included deletion of the Relevance item on the Objectives checklist since it provided very little information. One item in the Appendices was considered to be of little use and is currently undergoing revision. The decision was made to completely eliminate the Appendices. Cost of one useful item was prohibitive and one item seemed to promote one strategy over others which was not the intent. Major editing was done following the pilot study and changes in format took place.

**Dissemination - 3.0**

3.1   Finalize and distribute ABLE-G. Following the revision, 200 copies of the ABLE-G were prepared for dissemination. The AFB office of the National Initiative on Literacy in Atlanta was responsible for preparing and mailing 175 print copies and a few cassette tapes. Braille International, Inc. prepared and mailed 20 braille copies. A post-funding activity is preparation to place ABLE-G on Internet. That is being done in Illinois.

3.2   Presentations. Two major presentations were made at national conferences by ABLE staff and short verbal reports given at various meetings. (Appendix P)

3.3   Publications. A short article appeared in Research Notes for the Journal of Visual Impairment and Blindness. Another article will appear in the special JVIB issue on Literacy in April 1996. The project coordinator also anticipates writing a research article based on the data received in the pilot study.

# DISCUSSION AND IMPLICATIONS OF RESULTS

## Significance of Results

Results are based on data following a brief pilot study and a small number of participants. However, ABLE staff feel that the final product, the Adult Braille Literacy Empowerment-Guidelines, ABLE-G has had a positive impact on the seven agencies in which it was used. Its future impact appears to be very strong. ABLE-G has alerted administrators to the characteristics of a model literacy program. It has made instructors in braille literacy aware of the qualities needed to function as competent teachers and has provided them with the means to achieve such this competency.

Problems encountered. The major problem was the lack of stability, or abundance of mobility, of ABLE's core staff. The problem was solved through the commitment and diligence of the coordinator.

The impact of the situation has not decreased the quality of the project.

Unexpected or discrepant findings. There were no such findings.

Outcomes, implications for theory and practice. The introductory paragraph above is an appropriate response to this issue. Replication of the pilot study with the revised materials and a longer pilot study would be necessary to establish any theory. Implications for practice also lie in a replication of the pilot study portion of the project.

Meaningfulness. The pilot sites were quite diverse -- one state and two community agencies, two Lighthouse centers, two libraries which focus on the area of blindness and visual impairment, and one rehabilitation teacher/counselor preparation program. The diversity of those sites demonstrates that the ABLE-G is a meaningful contribution to adult braille literacy empowerment in a wide variety of settings:

# CHARTS

# 1 - 8

CHART 1

# The A.B.L.E. Project
(Adult Braille Literacy Empowerment)
1992-95

MODEL STRATEGY
DEVELOPMENT
1.1

DEVELOP
ADULT BRAILLE
LITERACY PROGRAM
1.0

TECHNOLOGY
RESEARCH REVIEW
1.2

Literature
Review

Adult Literacy
Network

Review
APH/Hadley
Materials

Consumer Advisory
Panel

TRAINING
SERVICE PROVIDERS
2.0

Materials
Developed

Model Strategy Pilots:
Key Training Areas:
Rehab: Texas Lighthouse/St. Louis Lighthouse
Rehab: Peninsula Center f/t Blind and Visually Impaired
Library: New York Public Library, Perkins
University: San Franciso State, Portland State University
Senior Center: Center f/t Visually Impaired, Atlanta
State: Oasis Project, Alabama

Consumer
Advisory
Panel

DISSEMINATION
3.0

A.A.R.P.

Adult
Literacy
Network

Mentorship Network

Various
Outreach Programs

Rehab. Centers

Senior Centers

Libraries

Universities

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Adult
Continuing Education
Programs

**CHART 2**

## TIMELINE

| PHASE/TASK | PERF. BY | 1992 - 1993 (1) | | | | 1993 - 1994 (2) | | | | 1994 - 1995 (3) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep |
| **1.1 MODEL STRATEGY DEVELOPMENT** Determine the components required of an adult literacy program which will consider heterogeneity, cultural diversity and site variation. | | | | | | | | | | | | | |
| 1.1.1 Complete comprehensive literature/program review. | 1,5,6 | X | | | | | | | | | | | |
| 1.1.2 Finalize membership of Consumer Advisory Panel. | 1,2,3,4,5 | X | | | | | | | | | | | |
| 1.1.3 Select consultants from adult and literacy areas. | 1,2,3,5 | X | | | | | | | | | | | |
| 1.1.4 Develop braille learning matrix considering all variables. | 1,2,3,4,5 | X | X | X | X | X | | | | | | | |
| 1.1.5 Collect state/private rehab centers and collect Braille training materials. | 1,2,4,5 | | X | X | | | | | | | | | |
| 1.1.6 Contact universities related to existing pre-service Braille training materials. | 1,2,5 | | X | | | | | | | | | | |
| 1.1.7 Review APH/Hadley materials. | 1,5 | | X | | | | | | | | | | |
| 1.1.8 Analyze curricula re key content areas. | 1,2,3,4,5 | | | X | X | X | | | | | | | |
| 1.1.9 Analyze learner/process strategies. | 1,2,3,4,5,6 | | | X | X | | | | | | | | |

CHART 3

TIME LINE

| PHASE/TASK | PERF. BY* | 1992 - 1993 (1) | | | | 1993 - 1994 (2) | | | | .1994 - 1995 (3) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep |
| 1.2 TECHNOLOGY RESEARCH REVIEW Assess the usefulness of various prototype and technological devices that interface with computer screens to produce braille output. | | | | | | | | | | | | | |
| 1.2.1 Identify the various technological devices which are producing braille and analyze basics. | 1,2,3,5 | | | | | X | X | X | | | | | |
| 1.2.2 Evaluate various technological devices and propose procedures for incorporating them into the model strategies for adult braille literacy. | 1,2,3,4,5,6 | | | | | X | X | X | | | | | |
| 1.2.3 * Develop auditory self-study program for use of braille-producing note-taking devices to learn braille reading and writing. | 1,2,3,5 | | | | | X | X | X | | | | | |

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# CHART 4

## TIMELINE
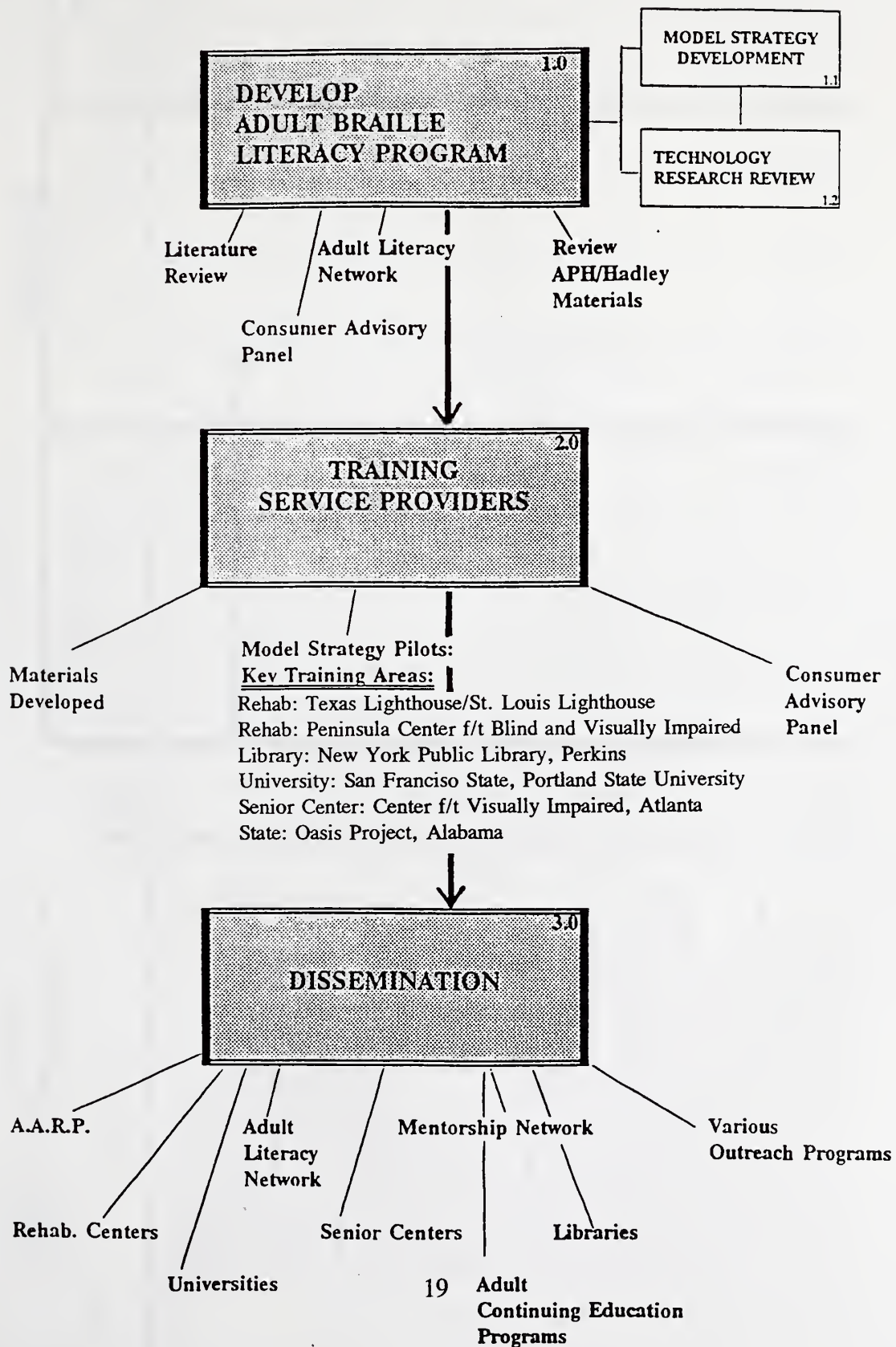
* 1 = PI, Coordinator
2 = Consultants (Emp/Older/Eval/Tech/Adult)
3 = Consumer Advisory Panel
4 = Pilot Sites   6 = Added Support (Lib, CTIB, NBLMP)
5 = Secretary   7 = Publications Department

| PHASE/TASK | PERF. BY* | 1992 - 1993 (1) | | | | 1993 - 1994 (2) | | | | 1994 - 1995 (3) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep |
| **2.0 TRAINING SERVICE PROVIDERS** Develop training materials for pre- and in-service trainers and administrators in various facilities utilizing model strategies. | | | | | | | | | | | | | |
| 2.0.1 Determine trainer competencies to teach reading and writing braille to a variety of adults. | 1,2,3,5 | | | | | X | X | | | | | | |
| 2.0.2 Develop learner objectives that are measurable for various sites/populations for braille use. | 1,2,3,5 | | | | | | X | X | X | | | | |
| 2.0.3 Develop learner objectives for technology to enhance braille literacy. | 1,2,3,4,5 | | | | | | . | X | X | | | | |
| 2.0.4 Develop learner objectives related to appropriate perception issues. | 1,2,3,5 | | | | | X | X | | | | | | |
| 2.0.5 Identify learner and training competencies for use with self-study materials. | 1,2,3,5 | | | | | | | X | X | | | | |
| 2.0.6 Pilot training materials/strategies at 7 pilot sites. | 1,2,4,5,6 | | | | | | | | | X | X | | |
| 2.0.7 Evaluate the results of pilot programs. | 1,2,3,5 | | | | | | | | | X | X | | |

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**CHART 5**

## TIMELINE

* 1 = PI, Coordinator
  2 = Consultants (Temp/Older/Eval/Tech/Adult)
  3 = Consumer Advisory Panel
  4 = Pilot Sites    6 = Added Support (Lib, CTIB, NBLMP)
  5 = Secretary    7 = Publications Department

| PHASE/TASK | PERF. BY | 1992 - 1993 (1) | | | | 1993 - 1994 (2) | | | | 1994 - 1995 (3) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep |
| **3.0 DISSEMINATION** Finalize materials for outreach and distribute them to the field through written and conference presentations. | | | | | | | | | | | | | |
| 3.1 Finalize materials for distribution in all formats. | 1,5,7 | | | | | | | | | | X | X | |
| 3.2 Network with constituents related to findings including regional/national conference. | 1,2,3, 4,6 | | | | | | | | | | X | X | X |
| 3.3 Produce 1 article in blindness journal and 1 in adult literacy publication. | 1,5,7 | | | | | | | | | | | X | X |

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# CHART 6

American Foundation for the Blind
Adult Braille Literacy Empowerment Project
MODEL STRATEGIES DEVELOPMENT

## 1.1.1: Complete comprehensive literature review
Task target completion date:  6/4/93

| Tactic Description | Staff† | Target Dates Start | Target Dates Completion | |
|---|---|---|---|---|
| A. Identify main areas in which we will look for information to be investigated | B, D, E, H | | 11/14/92 | ✓ |
| B. Determine where access to information lies outside of AFB | B, D, E, H | | 11/14/92 | ✓ |
| C. Determine resources available within AFB | B/LR | | 11/20/92 | ✓ |
| D. Determine who team members should be | B, E, D | | 11/30/92 | ✓ |
| E. Assign team members to research access areas of literature | B | | 12/15/92 | ✓ |
| F. Develop format for literature review (information) collection/reporting | E | | 12/30/92 | ✓ |
| G. Team members use format developed to report on information collected | as assigned | | 5/7/93 | |
| H. Collect and report information found about variables identified which affect an individual's learning of Braille (and contribute to matrix development) | E | 5/10/93 | 6/4/93 | |
| I. Incorporate results into products | B, E | | 3/31/94 | |

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†Staff Legend

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| A | = | Alberta Orr | CB | = | Connie Bañez | E | = | Evelyn Rex |
| B | = | Beth Paul | CR | = | Cheryl Richesin | ES | = | Elliot Schreier |
| C | = | Corinne Kirchner | D | = | Diane Wormsley | G | = | Gerry Miller |

| | | |
|---|---|---|
| H | = | Hilda Caton (APH) |
| J | = | Jay Leventhal |
| L | = | Lynne Luxton |

LR  =  Leslie Rosen

# CHART 7

## AFB ABLE PROJECT
### Action Plan Summary for Model Strategy Development

**1.1.1**
**Complete comprehensive literature/program review**

A Identify main areas in which we will look for information to be investigated

B Determine where access to information lies outside of AFB

C Determine resources available within AFB

D Determine who team members should be

E Assign team members to research access areas of literature

F Develop format for literature review (information) collection/reporting

G Team members use format developed to report on information collected

H Collect and report information found about variables identified which affect an individual's learning of Braille (and contribute to matrix development)

I Incorporate results into products

**1.1.2**
**Finalize membership of CAP**

A Determine size of membership (12-15)

B Develop role statement of CAP and of individual membership

C Make sure variables are adequately represented

D Do CAP profile on each person

**1.1.3**
**Select consultants from adult and literacy areas**

A Determine areas in which we need consultant help

B Identify individuals or groups which can provide help

C Develop contract which specifies what help will be provided by consultant

D Contract with individuals

**1.1.4**
**Develop Braille learning matrix considering all variables**

A Identify major areas of variables

B Develop reporting form for collecting information and ideas within various areas

C Communicate collection format and concept to AFB team members, CAP, sites, organizations

D Collect forms from AFB team members, CAP, sites, organizations

E Report back results to AFB team members, CAP, sites, organizations, and ask for additional input

F Conceptualize and develop matrix reporting format

G Incorporate results into products

**1.1.5**
**Contact state/private rehab centers and collect Braille training materials**

A Draft boiler plate of both grants and how they fit together (within AFB)

B Develop mini-announcement concerning mutual paragraph

C Decide which rehab agencies to contact; prepare mailing envelopes

D Develop survey

E 1. Mail out surveys; 2. Follow up

F Enter data from survey

G Request materials not already available

H Analyze the information received

I Write a report on information received

J Receive curriculum materials and hold for analysis; follow up if necessary

K Distribute report to CAP

L Incorporate results into products

**1.1.6**
**Contact universities related to existing pre-service Braille training materials and rehabilitation teaching preparation programs**

A Identify universities

B Identify the contact people at each of the rehab teacher programs

C Develop survey form to obtain information about how Braille is taught to other students (including text and materials used)

D 1. Mail out surveys; 2. Follow up

E Enter data from survey

F Analyze information

G Create report on how Braille is taught to pre-service rehab teachers (including text and other materials used)

H Distribute report to CAP

I Incorporate results into products

**1.1.7**
**Review APH/Hadley materials**
See 1.1.5 and 1.1.8

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CHART 8

# CONTENTS OF ADULT BRAILLE LITERACY EMPOWERMENT GUIDELINES

# APPENDIX A

# REFERENCES

Appendix A

**Adult Braille Literacy Empowerment**

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# APPENDIX B

# OBJECTIVES &
# SUB-OBJECTIVES

## OBJECTIVES AND SUB-OBJECTIVES
### Adult Braille Literacy Empowerment Project

## MODEL STRATEGY DEVELOPMENT

Develop a strategy or guidelines which will be a model for program development for an articulated Adult Braille Literacy Program.

Objective 1.0 - Determine the components required of a literacy program for adults who are blind which will take into account the heterogeneity and cultural diversity of the population and the various learning sites at which instruction may occur.

1.1 Prepare a comprehensive literature review which will include literature from adult education, adult literacy, vocational training, curriculum development, programmed or computerized instruction, the tactile nervous system, as well as reading and writing using braille.

1.2 Finalize membership of Consumer Advisory Panel, to include a sampling of representatives of sites which will pilot model strategies.

1.3 Select consultants to the project from the areas of adult education and adult literacy.

1.4 Develop a matrix which can be used in the model strategy development which will contain elements from the following sub-objectives;

1.4.1 Distinguish among the program needs of
a)  adults who are adventitiously blinded who have not been literate
b)  adults who are adventitiously blinded who have previously been literate
c)  adults who are congenitally legally blind who have been literate in print but can no longer read print and do not know braille
d)  adults who are congenitally legally blind who have never been literate in print or in braille

1.4.2 Identify the various types of literacy and determine how adults who are blind might achieve each type of literacy.

1.4.3 Identify the various learning sites at which instruction in braille currently occurs and identify other sites where learning might occur if an appropriate instructional model were available.

1.4.4 Determine adult braille users the various ways in which they use braille.

<u>Objective 2.0</u> - Collect and analyze the curriculum materials which are currently being used for instruction in braille with adults in the United States.

    2.1    Contact state and private rehabilitation centers to request that their rehabilitation teachers share any existing curriculum materials and/or teacher guides (including self-study materials) which are currently being used.

    2.2    Contact university rehabilitation teacher training centers for information about existing curriculum materials (including self-study materials) which they recommend to their pre- or in-service rehabilitation teachers.

    2.3    Purchase existing curriculum materials such as those developed by American Printing House and Hadley School for the Blind.

    2.4    Analyze materials for use in an Adult Braille Literacy Program.

    2.5    Identify strategies which have been used to enhance the ability of adults who are blind to learn to read and write using braille (including the use of technology).


<u>Objective 3.0</u> - Determine the attitudes toward braille which foster a desire in adults who are blind to learn braille and delineate negative attitudes which discourage learning of braille.

    3.1    Survey adult braille users regarding how they use braille and what their attitudes toward braille are, as well as what their parents' or family members' attitudes where when they were learning braille.

    3.2    Solicit from teachers and braille users the types of negative feedback they receive or have received regarding the use of braille.


## TECHNOLOGY RESEARCH REVIEW

<u>Objective 4.0</u> - Assess the usefulness of various prototype and technological devices that interface with computer screens to produce braille output as techniques to enhance literacy in braille.

    4.1    Identify various technological devices and/or prototype devices which are available for producing braille and analyze their cost, availability, interface with specific computer hardware and software systems and ease of use of someone who is blind or visually impaired.

    4.2    Evaluate use of the Blazie full page braille display prototype as part of an instructional program for adult braille literacy.

    4.3    Suggest strategies for incorporating various technological devices as part of a model program for adult braille literacy.

## TRAINING SERVICE PROVIDERS (MODEL STRATEGY EVALUATION)

Objective 5.0 - Develop training materials for pre- and in-service teachers and administrators in adult education institutions and rehabilitation facilities based upon the model strategy for the Adult Braille Literacy Program.

5.1 Determine the competencies which must be mastered by a teacher in order to be prepared to teach reading and writing using literary braille to adults who are blind using the program guidelines developed for the Adult Braille Literacy Program.

5.1.1 Using the findings from the Model Strategy Development, develop learner/ instructor objectives or learner outcomes for pre- and in-service teachers who will teach reading and writing using literary braille to adults who are blind.

5.1.2 Based upon findings from the Technology Research Review regarding use of technological devices to enhance braille literacy, develop learner outcomes with respect to application of technology for enhancement of learning to read and write using braille.

5.1.3 Include as part of the learner outcomes relevant objectives related to current research on the tactile nervous system as well as differences between print and braille reading from the standpoint of perception.

5.2 Determine for which competencies self-study materials exist and include references to these in training materials.

Objective 6.0 - Provide training (using training materials developed in Objective 5.0) for teachers at a maximum of four different sites selected on the basis of their type of program.

Objective 7.0 - Evaluate the training materials and the model strategy at the four sites.


## DISSEMINATION

Objective 8.0 - Provide presentations demonstrating the training and model strategy at least four conferences (national, regional or local, e.g., AER, Adult literacy, Disabled Student Services professional organizations, Library literacy) and including changes made in the training materials and model strategy based upon the evaluations received from the training program sites.

Objective 9.0 - Publish at least one article on the project in the Journal of Visual Impairment and Blindness, and submit another for publication to other appropriate journals.

Objective 10.0 - Disseminate results of project through AFB Regional Newsletters.

Objective 11.0 - Finalize training guidelines for dissemination as a booklet to be distributed to the various participants of the project.

# APPENDIX C

# PROJECT STAFF

APPENDIX C

PROJECT 2 IAT

# Appendix C

## Adult Braille Literacy Empowerment

### PROJECT STAFF

| | |
|---|---|
| Evelyn J. Rex, Project Coordinator | September 1992 to March 1995 |
| Susan J. Spungin, Project Director | April 1995 to September 1995 |
| Diane P. Wormsley, Project Director | July 1993 to March 1995 |
| Beth Paul, Project Director | September 1992 to June 1993 |
| Lorene Gregory, Project Assistant | July 1993 to September 1995 |
| Patricia Johnson, Secretary | April 1995 to September 1995 |
| Connie Banez, Project Assistant | September 1992 to June 1993 |
| Corinne Kirchner, Specialist in Evaluation | October 1992 to September 1995 |
| Jay Leventhal, Specialist in Technology | October 1992 to September 1994 |
| Gerald Miller, Specialist in Employment | October 1992 to September 1993 |
| Alberta Orr, Specialist on Aging | October 1992 to September 1995 |
| Mark Uslan, Specialist in Technology | October 1994 to September 1995 |

### SPECIAL CONSULTANTS

| | |
|---|---|
| Carol Farrenkoff | Case Studies |
| Carol Layton | Annotated Bibliography |
| Lynn Luxton | Adult Braille Reading |
| Cheryl Richensin | Braille Curriculum Review |
| Pat Bussen Smith | Adult Braille Reading |

# APPENDIX D

# CONSUMER ADVISORY PANEL

APPENDIX D

DIRECTIONS FOR THE EXPERIMENTAL SETUP

# Appendix D - 1

## Adult Braille Literacy Empowerment
## CONSUMER ADVISORY PANEL

Anita Baldwin, California

Jerome Berman, Georgia

Alberta Brown, Michigan

Kim Charlson, Massachusetts

Pat Cowan, Georgia

Winifred Downing, California

Gil Johnson, California

Karen Luxton Gourgey, New York

Vincent Martin, Georgia

Jane Merrill, California

Alma Murphey, Missouri (deceased)

Robert Langford, Texas

Kent J. Plemmons, North Carolina

Jill Noble Tobin, Ohio

Carlos Servan, New Mexico

Bob Slauson, California

## TELECONFERENCES

November 14, 1992

May 25, 1993

February 23, 1994

July 21, 1994

February 14, 1995

September 6, 1995

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American Foundation for the Blind
Adult Braille Literacy Empowerment (ABLE) Project
**Minutes of the Meeting**
**Consumer Advisory Panel (CAP) Conference Call Number 5**
**February 14, 1995**

PARTICIPANTS:
Consumer Advisory Panel:
Anita Baldwin, San Francisco, CA
Jerry Berman, Atlanta, GA
Kim Charlson, Watertown, MA
Winifred Downing, San Francisco, CA
Gil L. Johnson, San Francisco, CA
Bob Langford, Dallas, TX
Jane L. Merrill, Palo Alto, CA
Jill Noble Tobin, Cleveland, OH

ABLE Project
Diane P. Wormsley, Project Director and Principal Investigator
Evelyn J. Rex, Project Coordinator
Alberta Orr, Aging Specialist
Patricia Johnson, Project Assistant

Introduction of Participants:

Participants were given the opportunity to introduce themselves. Evelyn briefly stated the agenda for the meeting.

Update of Pilot Study:

Diane again identified the Pilot Study sites. A new site, the Library at Perkins, has been added with CAP member Kim Charlson as administrator. Each site has received the ABLE-Guidelines and the Blazie equipment -- a Braille 'n Speak and a braille printer. The print version of ABLE-G is one volume while the braille version is four volumes.

A letter and pre-pilot questionnaire were sent to Administrators and Instructors at the beginning of the Pilot Study. Each person will receive the post-pilot questionnaire as well.

Diane also reported what is being learned from the Pilot Study to date. There is a difference between established programs and those attempting to establish a program in the use of ABLE-Guidelines.
1.    Established programs are able to incorporate materials quickly.
2.    There is not as much enthusiasm from the newly established sites based on: how well teachers are prepared to teach Braille Literacy; whether administrators are willing and have program background; whether instructors are employees or volunteers.

<u>Pilot Study Time Line</u>:

Evelyn reported the timeline for the remainder of the ABLE project.

November 1994 - April, 1995

The study will take six months to complete. Materials were received at the sites by November 1, 1994. Completion date has been extended to April 30, 1995. Communication has been maintained with each site by either Diane or Evelyn assigned as liaison to the site. Communication with instructors and administrators has been by phone and by letter.

May - June, 1995

Lorene will mail final instructions including the post-questionnaire by April 15, 1995. Evelyn should received completed post-questionnaires and comments by May 5. Pat will organize and collate the materials. Responses are to be analyzed during May and June.

The primary information to be gained from the pilot study relates to the ABLE-G. The post-questionnaire asks questions related to each of the ABLE-G components. Instructors are also asked to make comments as they are using the materials and at the end of the pilot study. These two sources will provide the needed information to revise ABLE-G.

Tally of the questionnaires will provide descriptive information. For example, we will be looking at a) the site's literacy program, b) the kind of commitment the site has made, c) the number of hours an instructor meets with each client, frequency and length of sessions, and what strategies are used, d) instructors and their preparation to teach braille literacy, e) instructor objectives and strategies to become more competent. The final questionnaire will ask if they will share their competencies and the two objectives they chose to work on. They have the option not to tell us.

June - August, 1995

This period will be the revision stage. Both Atlanta and Normal personnel will be involved. Evelyn will spend some in Atlanta at the final stage of revision.

September, 1995

When all the materials have been revised, they will be disseminated at no charge to 200 agencies or persons. Ideally, dissemination will take place in September but most likely will happen in October and November. Planning for the dissemination has begun.

<u>Comments from CAP</u>:

Jerry asked how many clients will be in the program other than providers? Evelyn responded that sites were asked the number or clients. In some instances there will be more

clients at the beginning than at the end of the study. Sometimes there will be an increase. Percent of attrition rates will be considered. There are small numbers of instructors and clients due to the small number of sites.

Evelyn responded to a question regarding final statistical analysis for each center. The project will not make a statistical statement for each center. The focus is on what can be used by an agency and/or instructor and what can be used in different settings rather than focus on clients.

Diane reported the materials will be available for INTERNET as soon as disk copies are available. She also stated there is money in the grant for professional formatting of the braille copy.

Next CAP Meeting:

The next meeting will include a final review of what has been done and where we stand. The meeting will be held in six months. Gil suggested after Labor Day. Diane and Evelyn will pick a date after September 5. It was suggested the day NOT be Monday, Tuesday or Friday

Special Mentions:

Winifred's hand and arm are healing slowly. Alma Murphy passed away in early January which saddens us.

Diane announced she is taking a new position with Overbrook beginning April 1. She will stay in touch with the project. Evelyn will increase her time on the grant and become Project Director. Susan Spungin will take over some administrative duties. Lorene will continue part-time in Atlanta and Pat Johnson will assist Evelyn in Normal.

All were encouraged to attend the Jo Taylor Institute March 16-18 in Washington D.C.

Meeting Adjourned.

# APPENDIX E

# INDIVIDUAL PROFILE

**AMERICAN FOUNDATION FOR THE BLIND**
15 W. 16th Street, New York, NY 10011
**ADULT BRAILLE LITERACY EMPOWERMENT (ABLE) PROJECT**
**INDIVIDUAL PROFILE**

We appreciate your time and effort in filling out this questionnaire. For your convenience, you may respond in print, braille, tape, or by telephone interview. For print, respond directly on these pages. For braille, encircle your selection(s) in multiple-choice questions directly on these pages and use a separate sheet for written responses. For responding on separate sheets or on tape, please identify your responses by the numbers and letters corresponding to the questions. If you wish to respond by telephone interview, call our toll-free number, 1-800-AFB-LINE (1-800-232-5463), inform the operator that you are responding to the ABLE Project Questionnaire, leave your name, phone number and a date and time when you can be interviewed, and we will contact you for your phone interview.

1. Name: ☐Miss ☐Ms. ☐Mrs. ☐Mr. ☐Dr.
   _____

2. Mailing Address: _____
   _____
   _____

3. Phone (Day): Area Code (_____) _____

4. Phone (Evening): Area Code (_____) _____

5. a. ☐ Male
   b. ☐ Female

6. Age: _____ years

7. Current visual status:
   a. ☐ no usable vision
   b. ☐ very little usable vision
   c. ☐ considerable usable vision
   d. ☐ no visual problem
*If you do not have a visual problem, you do not have to answer the rest of the questionnaire. Please return it to AFB using the self-addressed envelope or mailing label included with this questionnaire. The AFB ABLE Project Staff thanks you for your participation.*

8. Near vision acuity, if known:   right eye _____   left eye _____

9. Far vision acuity, if known:   right eye _____   left eye _____

(Continued)

10. When did your vision problem begin to affect your activities?
    a. ☐ at birth
    b. _____ years

11. Diagnosis: _____

12. In the past year, has your vision
    a. ☐ improved?
    b. ☐ stayed about the same?
    c. ☐ worsened?

13. What reading media do you currently use?
    *Check all that apply.*
    a. ☐ braille
    b. ☐ regular print
    c. ☐ large print
    d. ☐ auditory

14. What reading media do you currently use the most?
    a. ☐ braille
    b. ☐ regular print
    c. ☐ large print
    d. ☐ auditory

15. What reading media do you prefer the most?
    a. ☐ braille
    b. ☐ regular print
    c. ☐ large print
    d. ☐ auditory

16. Which of the following techniques do you use for reading?
    *Check all that apply.*
    a. ☐ computer used with voice synthesizer
    b. ☐ audio tape
    c. ☐ audio compact disc (CD)
    d. ☐ CCTV
    e. ☐ magnifying glass
    f. ☐ other techniques (*please specify*)_____
    g. ☐ none

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17. What writing media do you currently use?
    *Check all that apply.*
    a. ☐ braille
    b. ☐ print
    c. ☐ oral or tape

18. What writing method do you currently <u>use the most</u>?
    a. ☐ braille
    b. ☐ print
    c. ☐ oral or tape

19. What writing method do you <u>prefer the most</u>?
    a. ☐ braille
    b. ☐ print
    c. ☐ oral or tape

20. Which of the following techniques do you use for writing?
    *Check all that apply.*
    a. ☐ mechanical braille writer (e.g., Perkins)
    b. ☐ slate and stylus
    c. ☐ personal computer
    d. ☐ typewriter
    e. ☐ audio tape recorder
    f. ☐ CCTV
    g. ☐ electronic braille note taker (e.g., Braille 'n Speak, BrailleMate, etc.)
    h. ☐ other techniques (*please specify*)_____
    i. ☐ none

21. What are some of your purposes for reading?
    *Check all that apply.*
    a. ☐ communication with self (e.g., labels, lists)
    b. ☐ communication with family and friends
    c. ☐ communication in the workplace
    d. ☐ pleasure
    e. ☐ others (please specify)_____
    _____
    _____

(Continued)

22. What are some of your purposes for writing?
    *Check all that apply.*
    a. ☐  communication with self (e.g., labels, lists)
    b. ☐  communication with family and friends
    c. ☐  communication in the workplace
    d. ☐  pleasure
    e. ☐  others (please specify)_____

    _____

23. How often do you read?
    a. ☐  many times daily
    b. ☐  about once a day
    c. ☐  about once a week
    d. ☐  less than once a week

24. How often do you write?
    a. ☐  many times daily
    b. ☐  about once a day
    c. ☐  about once a week
    d. ☐  less than once a week

25. Do you enjoy reading?
    a. ☐  always
    b. ☐  most of the time
    c. ☐  sometimes
    d. ☐  never
    Please make any comments you would like to share. _____

    _____

26. Do you enjoy writing?
    a. ☐  always
    b. ☐  most of the time
    c. ☐  sometimes
    d. ☐  never
    Please make any comments you would like to share. _____

    _____

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27. For reading do you use --
    a. ☐ Grade 2 braille?
    b. ☐ full-spelling braille?
    c. ☐ full-spelling plus some contractions and/or short forms?
    d. ☐ Grade 3 braille?
    e. ☐ I do not use braille for reading.

28. For writing do you use --
    a. ☐ Grade 2 braille?
    b. ☐ full-spelling braille?
    c. ☐ full-spelling plus some contractions and/or short forms?
    d. ☐ Grade 3 braille?
    e. ☐ I do not use braille for writing.

29. At what age did you first start to read?    _____ years

30. What medium did you first use?
    a. ☐ braille
    b. ☐ print
    c. ☐ auditory

31. Were you taught to read --
    a. ☐ individually?
    b. ☐ in a group?
    c. ☐ both?

32. In what setting were you taught to read?
    a. ☐ special class
    b. ☐ regular class
    c. ☐ home

33. What materials were used?
    *Check all that apply.*
    a. ☐ basal readers (Dick and Jane, Bank Street Reader, etc.)
    b. ☐ library books
    c. ☐ workbooks
    d. ☐ language experience stories
    e. ☐ others (please specify)_____

(Continued)

34. What can you share about your progress, your feelings and other aspects about learning to read?

_____

_____

_____

_____

_____

35. Because of change in visual status, did you receive additional reading and writing instructions?
   a. ☐ NO   ☐ YES
   *If YES, complete items 36-43. If NO, proceed to item 44.*

36. At what age did you begin to receive additional reading instruction?   _____ years

37. What method was presented for this additional instruction?
   a. ☐   braille
   b. ☐   print
   c. ☐   auditory

If this additional instruction was in a new method, did you continue to use the previous method?
38. Reading: a. ☐ YES   b. ☐ NO

39. Writing: a. ☐ YES   b. ☐ NO

40. Were you taught --
   a. ☐   individually?
   b. ☐   in a group?
   c. ☐   both?

41. In what setting were you taught to read in this new medium?
   a. ☐   special class
   b. ☐   regular class
   c. ☐   home
   d. ☐   rehabilitation setting

42. What materials were used?
   a. ☐   basal readers (Dick and Jane, Bank Street Reader)
   b. ☐   library books
   c. ☐   workbooks
   d. ☐   language experience stories
   e. ☐   others (please specify)_____

(Continued)

43. What can you share about your progress, your feelings and other aspects about your additional instruction?

_____

_____

_____

_____

_____

44. If any, what things motivated you to learn braille?   _____

_____

_____

45. If any, what things hindered you from learning braille? _____

_____

_____

46. Have you ever been employed for pay?   a. ☐ NO   b. ☐ YES
    *If YES, please complete items 47-51. If NO, proceed to item 52.*

47. What is/was your main occupation?_____

48. Are you currently employed?      a. ☐ NO      b. ☐ YES
    *If YES, complete items 49-51.*

49. Position: _____

50. Employer: _____

51. Do you work --
    a. ☐   full-time?
    b. ☐   part-time?

52. Finally, do you have any comments you wish to add about reading or writing as a person who is severely visually impaired or blind, and/or any comments about this survey?_____

_____

_____

_____

*Thank you very much for your time and effort! Please return this form in the enclosed envelope or using the enclosed mailing label.*

# APPENDIX F

# MATRIX

# MATRIX OF
## WHAT AFFECTS SUCCESS IN LEARNING BRAILLE
## BY ADULTS WHO HAVE BECOME BLIND OR VISUALLY IMPAIRED?

### Introduction

We have identified, with the help of a few educators and blind consumers, a long list of factors that may be important for success in learning to read and write braille by adults who have become blind or severely visually impaired.

Now, to help develop effective braille teaching materials, we turn to a select group of practitioners with experience teaching braille to adults, to learn which factors they -- that is, you -- consider to be most important.

### Purpose

Our purpose is to identify the most important variables which affect the success adults experience in learning braille. We hope to use the findings to prepare a document which will explain how the variables affect success. This document will be accompanied by case studies reflective of the diversity one would expect to find among adult clients.

### Directions

In the following pages, we ask you to rate, in your opinion (and based upon your own teaching experience), whether each factor "Is Extremely Important," "Is Very Important," "Is Important," "Is of Little Importance," or "Is of No Importance." You can show your rating by checking the box in each row that best corresponds to how important you believe that factor is relative to all the other factors.

A Suggestion: If you skim over all the items before rating any of them, you will probably find it easier to rate the importance of each factor relative to the others.

Also Note: We have included an additional sheet for you to write in any other factors that you believe are important, or to use in making additional comments.

| Factors that May Affect Success of Adults Learning Braille | Is Extremely Important | Is Very Important | Is Important | Is of Little Importance | Is of No Importance |
|---|---|---|---|---|---|
| **.TERACY FACTORS** | | | | | |
| 1. Whether the Learner did reading/ writing in his/her occupation before losing vision | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Whether the Learner has the possibility of continuing in (or entering) an occupation which uses reading/writing | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Whether the Learner views reading/writing as useful in in daily living tasks | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Whether the Learner currently uses vision for reading or writing in occupational tasks | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Whether the Learner currently uses vision for reading or writing in daily living tasks | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Whether the Learner currently uses vision for pleasure reading | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. How advanced the Learner was in literacy before losing vision | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. Whether the Learner views assistive technology as a tool for literacy | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. Whether the Learner uses assistive technology as a tool for literacy | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. Whether the Learner views assistive technology as a substitute for braille | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. Learner's present literacy needs | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. The kinds of literacy tasks the Learner wishes to continue to perform | ☐ | ☐ | ☐ | ☐ | ☐ |

# APPENDIX G

# LITERATURE REVIEW

Appendix G - 1

**Adult Braille Literacy Empowerment**

**LITERATURE REVIEW**

| <u>Topical Areas</u> | <u>Reviewers</u> |
|---|---|
| Adult Education | B. Paul, A. Orr |
| Adult Literacy | B. Paul, E. Rex |
| Aging and Older Blind | A. Orr |
| Attitudes and Motivation | B. Paul |
| Braille Literacy | E. Rex |
| Employment | G. Miller |
| Literacy (Braille) Instruction | E. Rex |
| Rehabilitation - Services, Teachers, Counselors | G. Miller |
| Tactile Perception | H. Caton |
| Technology | J. Leventhal, M. Uslan |

AMERICAN FOUNDATION FOR THE BLIND
ADULT BRAILLE LITERACY EMPOWERMENT PROJECT
Literature Review Report

| Title: Book, Chapter, Monograph, or Article_____ |
|---|
| Author(s)/Editor(s) |
| Publication Date, Journal, Volume, Number_____ |
| Publisher and Address |

**Information Summary**
Briefly describe information found as relevant to your assigned area(s) of review. Also, include brief assessment on extent and quality of information, and titles of books or articles that were referred to or listed in the bibliography which may be of interest to you or to others.

| Page(s) | Subject |
|---|---|
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**Notes:**
Please include any information which could be relevant to other team members' review.

_____

_____

Reviewer _____ Date _____

Please submit to Connie Bañez, AFB New York, NPA Department, by March 30, 1993.

If literature reviewed provides significant information relating to any of the following subject areas, please identify the subject area(s) with a check mark.

Matrix elements
(Variables related to learning of braille)

Pre-service braille training ☐

I. Cognitive
   A. Intellectual functioning ☐
   B. Individual schema ☐
   C. Perceptual strengths ☑
   D. Psychological ☑

Curriculum/program materials content
   Topical ☐
   Curricular ☐

II. Affective
   A. Emotional ☑
   B. Sociological ☑
   C. Psychological ☑

Attitudes
   Of braille user/potential user ☐
   Of braille instructor/trainer or
      counselor ☐

III. Psychomotor
   A. Physical ☑
   B. Physical as related to the visual
      disability ☐

Learner process strategies as related to
   adult education ☐
   adult literacy ☐
   workplace competencies ☐
   braille literacy ☐

IV. Environmental
   A. Sound ☑
   B. Light ☑
   C. Temperature ☑
   D. Formal/informal design ☑

Technology as related to braille ☐

Service-provider competencies ☐

V. Instructional techniques
   A. Instructional technique ☑
   B. Curriculum ☐
   C. Program or approaches ☐
   D. Materials ☐
   E. Strategies ☐
   F. Instructor's preparation ☐

Learner objectives ☐

Self-study competencies
   trainer ☐
   learner ☐

VI. Motivation, Persistence, Responsibility

Reviewer _Evelyn Rex_ Date _April 30, 1993_

Please submit to Connie Báñez, AFB New York, NPA Department, by May 7, 1993.

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# APPENEDIX H
# FLYER

# Appendix H

| | | | |
|---|---|---|---|
| A F B | American Foundation for the Blind | 15 West 16th Street New York. NY 10011 Tel: 212.620.2000 TDD: 212.620.2158 | *Incorporated in 1921* |

---

## ADULT BRAILLE LITERACY EMPOWERMENT (ABLE) PROJECT

In its mission to enable persons who are blind or visually impaired to achieve equality of access and opportunity that will ensure freedom of choice in their lives, the **American Foundation for the Blind (AFB)** recently established "literacy for people who are blind or visually impaired" as one of its major initiatives. As part of this initiative, the AFB Adult Braille Literacy Empowerment Project (ABLE) was created. ABLE is a three year project funded by NIDRR which began on October 1, 1992. ABLE is a multi-faceted project which will result in the development of best practice activities/strategies for teaching braille to adults who are blind or severely visually impaired. In 150 years of teaching braille to adults, little has been recorded as to which methods and materials have been most successful. Now you, the experts, are being consulted concerning:

- o For what activities/purposes do people with visual impairments want to learn braille?
- o How did you learn to read or teach braille?
- o What methods or strategies work best in teaching/learning braille?
- o What methods or strategies do not work well in teaching/learning braille?
- o What are other important things to consider in developing a program to teach braille?

We also need your help in encouraging others who are currently learning (or are not learning) braille to contribute their insight and experiences. They can communicate directly with AFB or through you. Indicate your willingness to share your expertise by completing and mailing the self-addressed participation postcard below.

Together we can make a difference that all may be <u>ABLE</u> to read.

---

## AMERICAN FOUNDATION FOR THE BLIND, INC.
## ADULT BRAILLE LITERACY EMPOWERMENT PROJECT
### PARTICIPANT FORM

NAME: _____  MY READING MEDIUM: _____

HOME ADDRESS: _____
　　　　　　　　　　Street

_____
City/State　　　　　　　　　　　　　　　　　Zip Code

BEST TIME TO CONTACT ME: _____ ☐ A.M. ☐ P.M.   PHONE: (____) _____

BRAILLE EXPERIENCE: *(Check <u>all</u> that apply)*

☐ I am currently learning to use braille as my reading medium.

☐ I learned to use braille as my reading medium as an <u>adult</u>.

☐ I learned to use braille as my reading medium as a <u>child</u>.

☐ I teach (or have taught) braille to adults who are blind or visually impaired.

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# APPENDIX I

# REHABILITATION PERSONNEL PROGRAMS

**AMERICAN FOUNDATION FOR THE BLIND**
15 West 16th Street, New York, NY 10011
**ADULT BRAILLE LITERACY EMPOWERMENT (ABLE) PROJECT**
**SURVEY OF REHABILITATION PERSONNEL PREPARATION PROGRAMS:**
**BRAILLE TRAINING**

University _____

Program _____

Name of person responding to survey _____

    Title _____

    Phone number ( ___ ___ ___ ) ___ ___ ___ - ___ ___ ___ ___

At what level(s) is the program offered? *Check all that apply.*
- ☐ Non-degree    ☐ Bachelor's    ☐ Master's    ☐ Doctorate
  - ☐ Undergraduate
  - ☐ Graduate

Braille codes taught
- ☐ literary, Grade I
- ☐ literary, Grade II
- ☐ Nemeth
- ☐ computer
- ☐ music

Formats taught
- ☐ textbook
- ☐ outline
- ☐ foreign language
- ☐ other *(please specify)* _____

_____

Instructional strategies (or pre-packaged materials) which you have found to be successful

a. _____

b. _____

c. _____

d. _____

e. _____

Please use the sheet provided to list the courses in the program which relate to the learning or teaching of braille.

List courses which include the learning or teaching of braille. Please write a short description or attach page(s) from course catalogue. Also, identify textbooks (author, title, edition, publisher) and instructional materials used. This page may be reproduced as needed.

Course title: _____

Description: _____

Number of weeks a class meets: _____     Credit hours: _____

Approximate number of hours for study outside of classroom: _____

Text (include edition, year): _____

    Author: _____

    Publisher: _____

Other instructional materials used: _____

_____

_____

Required course?     ☐ YES, at _____ level     ☐ NO

Course title: _____

Description: _____

Number of weeks a class meets: _____     Credit hours: _____

Approximate number of hours for study outside of classroom: _____

Text (include edition, year): _____

    Author: _____

    Publisher: _____

Other instructional materials used: _____

_____

_____

Required course?     ☐ YES, at _____ level     ☐ NO

Course title: _____

Description: _____

Number of weeks a class meets: _____     Credit hours: _____

Approximate number of hours for study outside of classroom: _____

Text (include edition, year): _____

    Author: _____

    Publisher: _____

Other instructional materials used: _____

_____

_____

Required course?     ☐ YES, at _____ level     ☐ NO

*Thank you for responding to this ABLE Project survey. The AFB ABLE team appreciates your time and effort. We have included a self-addressed, postage-paid business reply envelope with this survey for your convenience.*

Adult Braille Literacy Empowerment

## TEXTBOOKS UTILIZED IN UNIVERSITY PROGRAMS TO PREPARE REHABILITATION TEACHERS AND COUNSELORS

| EMPHASIS | NUMBER WHO USE | TITLE | AUTHOR |
|---|---|---|---|
| **Literary Braille** | | | |
| Grade I Braille | 1 | Learning to Read Braille, Grades I and II | Smith |
| Grade II Braille | 2 | Dot Writing | Wise |
| | 2 | New Programmed Instruction in Braille | Ashcroft |
| | 2 | Mangold Developmental Program of Tactile Perception and Braille Letter Recognition | Mangold |
| Grade III Braille | 1 | Key to Grade III Braille | Rodenberg |
| **Math & Science** | | | |
| Nemeth Code | 1 | Learning Nemeth Braille Code | Craig |
| Abacus | 1 | Introduction to the Use of the Cranmer Abacus | Kapperman |
| Methods | 1 | Introduction to Braille Mathematics | |
| **Code Manuals** | | | |
| Computer | 1 | Computer Braille Code | NBP |
| Literary | 2 | English Braille American Edition | BANA |
| Music | N/R | | |
| Nemeth | N/R | | |
| Textbook Format | 3 | Code of Braille Textbook Format and Techniques | NBA |
| Transcribing | 4 | Instructional Manual for Braille Transcribing | Dorf & Scharry |
| **Computer Tech.** | 1 | Voice Indexing for the Blind, Incorporated | |
| | 1 | VOXCOM, Kit f/t Visually Impaired - Instructions | |
| **Slate and Stylus** | 1 | Teaching Slate and Stylus | Mangold |
| **Typewriting** | 1 | Basic Introduction to Typing for the Visually Handicapped Student | Taylor |
| **Handwriting** | 1 | Handwriting Manual: Reference Manual for Rehabilitation Teachers Working with the Adult Blind | Illinois DCFS |
| | 1 | Teaching the Blind Script Writing by the Marks Method | Marks & Marks |
| **Labeling** | 1 | Tactile Method of Labeling with Raised Letters | Frank |

Adult Braille Literacy Empowerment

## TEXTBOOKS UTILIZED IN UNIVERSITY PROGRAMS TO PREPARE REHABILITATION TEACHERS AND COUNSELORS

| EMPHASIS | NUMBER WHO USE | TITLE | AUTHOR |
|---|---|---|---|
| Methods | | | |
| Children & Adults | 3 | Communication Skills for Visually Impaired Learners | Harley et al |
| | 2 | Foundations of Education for Blind and Visually Handicapped Children and Youth | Scholl |
| | 2 | Guidelines and Games for Teaching Efficient Braille Reading | Olson & Mangold |
| | 1 | Modern Methods of Teaching Braille | |
| | 1 | Strategies for Teaching Learners with Special Needs | |
| | 1 | Teachers Guide to the Special Education Needs of VI Students | Mangold |
| | 1 | Teaching the Visually Handicapped | Hanninen |
| Adults | | | |
| | 1 | If Blindness Strikes: Don't Strike Out | Smith |
| | 1 | Teaching Braille Reading to Adventiously Blinded Individuals | Napier |
| Assessment | 1 | Informal Assessment of Developmental Skills for Visually Handicapped Students | Swallow |
| Curriculum for Adult Learning | 1 | Beginning Braille for Adults | Nading & Walhof |
| | 1 | Braille Series 1960 (Illinois) | IL Commission on Blindness |
| | 1 | Braille in Brief | Krebs |
| | 2 | Braille: A Different Approach | Wise |
| | 2 | Read Again | APH |
| | 1 | Reading with Feeling | Strauss |
| | 1 | Step By Step Study Guide | Mangold & Pesavento |
| Literacy | 1 | Braille Literacy | Spungin |
| | 1 | Print and Braille Literacy | Caton |
| Low Vision | 1 | Understanding Low Vision | Watson & Berg |

## Adult Braille Literacy Empowerment

# Rehabilitation Personnel Preparation Programs: Braille Training

| Type of Degree Program | Number |
|---|---|
| Non-degree, undergraduate | 1 |
| Non-degree, graduate | 5 |
| Bachelors | 1 |
| Masters | 7 |
| Doctorate | 2 |

| Braille Code Instruction | Number |
|---|---|
| Literary Grade I | 7 |
| Literary Grade II | 7 |
| Nemeth | 7 |
| Computer | 6 |
| Music | 2 |

American Foundation for the Blind
Adult Braille Literacy Empowerment (ABLE) Project
Rehabilitation Personnel Preparation Programs: Braille Training
Telephone Conference of University Instructors
May 14, 1993, 2:00 - 3:00 pm EDST

## PARTICIPANTS

ABLE Project Core Staff:
   Beth J. Paul, Project Director and Principal Investigator
   Evelyn J. Rex, Project Coordinator
   Diane P. Wormsley, Literacy Specialist
   Corinne Kirchner, Evaluation Specialist
   Alberta Orr, Aging Specialist
   Connie Bañez, Project Assistant

Nancy Paskin and Stuart Wittenstein, Hunter College (NY), Department of Special Education: Rehabilitation Teaching

J. Elton Moore, Mississippi State University, Rehabilitation Research and Training Center on Blindness & Low Vision

Gaylen Kapperman, Northern Illinois University, Programs in Vision (Patricia Koenig unable to attend)

Rita Livingston, Pennsylvania College of Optometry, M.S. Degree Program in Rehabilitation Teaching (Maureen A. Duffy unable to attend)

Sandra Rosen and Sally Mangold, San Francisco State University, Education of the Visually Impaired

Patricia B. Smith and Cheryl Richesin (graduate student), University of Arkansas at Little Rock, Rehabilitation Teaching of the Blind

Paul and Susan Ponchillia, Western Michigan University, Department of Blind Rehabilitation, Rehabilitation Teaching

## AGENDA

1.  Introduction of participants, E. Rex (*5 minutes*)

2.  ABLE Project goals and role of the universities, B. Paul (*5 minutes*)

3.  Discussion and reaction to results of survey, E. Rex (*20 minutes*)

4.  Other issues related to teaching reading and writing by braille; i.e.,
    *   competencies needed
    *   preparation to teach reading and code
    *   role of Grade 1 and Grade 2 braille for adult literacy
    *   learner objectives
    *   materials available for adult instruction
    *   additional strategies
    *   your suggestions

    E. Rex (*30 minutes*)

# APPENDICES

# J - N

# American Foundation for the Blind
## Adult Braille Literacy Empowerment (ABLE) Project
### BRAILLE CURRICULUM MATERIALS REVIEW

| | 1. ABC's of Braille | 2. ABLK Method of Teaching Braille | 3. Beginning Braille | 4. Beginning Braille for Adults | 5. Braille a Different Approach (AKA/Arkansas Materials) |
|---|---|---|---|---|---|
| **Author:** | Bernard M. Krebs | Bernice G. Robins | Michael Tobin | Mabel Naading, Romona Walhof | Johnette B. Weiss, Jeff Weiss, Bernard M. Krebs |
| **Publisher:** | American Printing House for the Blind P.O. Box 6085 Louisville, KY 40206-0085 | CNIB/Deaf-Blind Services 1929 Bayview Avenue Toronto, Ontario Canada M4G 3E8 | Royal National Institute for the Blind 224 Great Portland Street London England W1N 6AA | The National Federation of the Blind 1800 Johnson Street Baltimore, Maryland 21230 | American Printing House for the Blind P.O. Box 6085 Louisville, KY 40206-0085 |
| **Latest Publication Date:** | 1982 | 1982 | 1987 | 1986 | 1985 |
| **Cost:** | $35.96 (C) | (Canadian) $15.00 (C) $25.00 Braille tchers. manual | 23 Pounds, 95 Sterling | $4.00 | $34.88 |
| **Target Population:** | Children and Slower Adult Learner | Deaf-Blind Adult | Independent Adult Learner | Independent Adult Learner | Adult Learner |
| **Medium:** | Braille, Print (line-by-line) | Braille text Braille and Print manual | Braille text, Print manual Taped instructions | Braille text Taped instructions | Braille (student/teacher) Cassette (writing exercises) |
| **Reability Level:** | Grades 1 thru 4 | Grade 1 | Adult level | Grade 2 level | Grades 1 thru 2 |
| **Levels of Braille Code:** | Grades 1 and 2 | Grades 1 only | Grades 1 and 2 | Grades 1 and 2 | Grades 1 and 2 |

(C) = Combined cost of braille text & print teacher's manual

American Foundation for the Blind
Adult Braille Literacy Empowerment (ABLE) Project
**Braille Access Technology:  Braille Notetakers/Writers**

Appendix K

| Name | Distributor/Producer | Cost | Dimensions | Weight | Manuals | Speech Output | Braille Display | Braille Display Size | Battery Powered | Battery Charge |
|---|---|---|---|---|---|---|---|---|---|---|
| Braille 'n Speak 640 | Blazie Engineering 105 East Jarrettsville Rd. Forest Hill, MD 21050 (410) 893-9333 | $1,299 | 8"x4"x1" | 2 lbs | Tape (braille $15) | Yes | No | N/A | Yes | 14-20 hours |
| Braille Lite | Blazie Engineering 105 East Jarrettsville Rd. Forest Hill, MD 21050 (410) 893-9333 | $3,450 | 8.3"x5"x1.8" | 2 lbs | Tape Braille | Yes | Yes | 18 cells | Yes | 40 hours |
| BrailleMate 2 | TeleSensory Corp. P.O. Box 7455 455 North Bernardo Mountain View, CA 94039 (800) 227-8418 | $1,595 | 3.8"x8.3"x1" | 1 lb | Tape Braille | Yes | Yes | 1 cell | Yes | 6-8 hours |
| BrailleMate 2 + 2 | TeleSensory Corp. P.O. Box 7455 455 North Bernardo Mountain View, CA 94039 (800) 227-8418 | $1,890 | 3.8"x8.3"x1" | 1 lb | Tape Braille | Yes | Yes | 1 cell | Yes | 6-8 hours |
| Eureka A4 | Integrated Assistive Tech. 1257 Michigan Dr. Coquitlam, BC, CANADA V3B 6T7 (800) 688-9538 | $2,595 - 2,995 | 12"x8"x1.5" | 3.5 lbs | Tape Disk | Yes | No | N/A | Yes | 8 hours |
| Mountbatten Brailler | HumanWare Inc. 6245 King Rd. Loomis, CA 95650 (916) 652-7253 (800) 722-3393 | $2,495 - $3,295 | 3.5"x9"x17" | 9.2 lbs | Braille | No | Hard-copy Output | N/A | Yes | 4-6 hours |

## INSTRUCTOR OBJECTIVES

RATE YOURSELF

II. PROVIDING PROGRAMS FOR BRAILLE LITERACY

| | Adequate | Somewhat Adequate | Not Adequate |
|---|---|---|---|

A. The teacher has knowledge and skills to create sequential instructional programs for teaching adult learners:

1. The teacher is able to create programs to teach:

| | Adequate | Somewhat Adequate | Not Adequate |
|---|---|---|---|
| a. readiness for braille literacy | ___ | ___ | ___ |
| b. braille reading | ___ | ___ | ___ |
| c. reading for multiply handicapped | ___ | ___ | ___ |
| d. reading for mentally retarded | ___ | ___ | ___ |
| e. reading for deaf-blind | ___ | ___ | ___ |
| f. reading for physically disabled | ___ | ___ | ___ |
| g. reading for head injured | ___ | ___ | ___ |
| h. reading for illiterate | ___ | ___ | ___ |
| i. reading for non-native English speakers | ___ | ___ | ___ |

2. The teacher is able to create programs to teach:

| | Adequate | Somewhat Adequate | Not Adequate |
|---|---|---|---|
| a. writing with braille writer | ___ | ___ | ___ |
| b. writing with slate and stylus | ___ | ___ | ___ |
| c. writing with braille notetakers | ___ | ___ | ___ |
| d. notetaking skills | ___ | ___ | ___ |
| e. keyboarding skills | ___ | ___ | ___ |
| f. computer skills | ___ | ___ | ___ |
| g. labeling methods | ___ | ___ | ___ |
| h. drawing and raised line devices | ___ | ___ | ___ |

3. The teacher is able to create programs to teach braille access technology:

| | Adequate | Somewhat Adequate | Not Adequate |
|---|---|---|---|
| a. using computer | ___ | ___ | ___ |
| b. using braille output devices (printers) | ___ | ___ | ___ |
| c. using specialized software | ___ | ___ | ___ |
| d. using braille translation software | ___ | ___ | ___ |
| e. using notetakers | ___ | ___ | ___ |
| f. using refreshable braille displays | ___ | ___ | ___ |

Appendix M

| INSTRUCTOR OBJECTIVES | STRATEGIES FOR ACQUIRING INSTRUCTOR OBJECTIVES |
|---|---|

1. The teacher is able to create programs to teach:

   a. readiness for braille literacy

   1) Read Stocker, Modern Methods of Teaching Reading. (Braille Curriculum Materials in ABLE-G, Section VI)
   2) Read Caton, Pester, & Bradley. Read Again. (Braille Curriculum Materials, Section VI)
   3) Read Mangold. The Mangold Developmental Program of Tactile Perception and Braille Letter Recognition.

   b. braille reading

   1) Take a course in reading methods from a nearby college or university.
   2) Use the Annotated Bibliography, Section V.
   3) Read Rex, Koenig, Wormsley, & Baker. Foundations of Braille Literacy.
   4) Read Olson. Guidelines and Games for Teaching Effective Braille Reading.
   5) Read Mangold. A Teacher's Guide to the Special Educational Needs of Blind and Visually Impaired Children.

   c. reading for multiply handicapped

   1) Take a survey course on learners with disabilities.
   2) Refer to the Braille Curriculum Materials, Section VI, to determine the one most appropriate for the additional handicap of your client.

   d. reading for mentally retarded

   See Objective c. above

   e. reading for deaf-blind

   See Objective c. above

**Adult Braille Literacy Empowerment**

# EIGHT SITES PARTICIPATING IN ABLE-G PILOT STUDY

| AGENCY | # of Admin. | # of Instructors | # of Students Beginning | # of Students End |
|---|---|---|---|---|
| Alabama Department of Rehabilitation Services<br>2129 East South Blvd.<br>Montgomery, AL 36111 | 1 | 6 | 16 | 16 |
| Center for the Visually Impaired<br>763 Peachtree Street, NE<br>Atlanta, GA 30306 | 1 | 3 | 15 | 12 |
| Dallas Lighthouse for the Blind<br>4245 Office Parkway<br>Dallas, TX 75204 | 1 | 2 | 9 | 13 |
| The New York Public Library<br>Andrew Heiskel Library f/t Blind & Phys.<br>Handicapped<br>40 West 20th Street<br>New York, NY 10011 | 1 | N/A | N/A | N/A |
| Peninsula Center for the Blind and Visually Impaired<br>2470 El Camino Real, Suite 107<br>Palo Alto, CA 94306 | 1 | 3 | 7 | 1 |
| Braille and Talking Book Library<br>Perkins School for the Blind<br>175 North Beacon Street<br>Watertown, MA 02172 | 1 | 1 | 1 | 6 |
| San Francisco State University<br>Department of Special Education<br>1600 Holloway Avenue<br>San Francisco, CA 94132 | 2 | N/A University Academic Instructors | Rehab/ Teacher Prep Students | Rehab/ Teacher Prep Students |
| Lighthouse for the Blind<br>10440 Trenton Avenue<br>St. Louis, MO 63132 | 2 | 1 | 4 | Withdrew from Study |
| **TOTALS** | **10** | **16** | **52** | **48** |

# APPENDIX O

# QUESTIONNAIRES

# Project ABLE: Questionnaire for Site Administrators - Pre

1.    Name: _____

      Title: _____

      Agency Name and Address: _____

      _____

      _____ _____

      Phone Number: _____

2.    Do you currently have a braille literacy program at your agency?
      Yes _____ No _____

      If YES answer Question 3.   If NO answer Question 4.

3     a.    About how many clients are currently being served in your braille instructional
            program? _____

      b.    To how many clients do you provide braille literacy instruction during the
            average fiscal year? _____

4.    Do you intend to use the Project ABLE materials to establish a braille literacy program
      at your agency?
      Yes _____ answer (a) below        No _____ answer (b) below

      a.    If "Yes," how many staff will be using the materials?

      _____

      b.    If "No," in what way will you be using the materials for Project ABLE?

      _____

5.    About how many clients in all did your agency serve during your last fiscal year?

      _____

6.    What is the total number of full time equivalent (FTE) staff at your agency (excluding
      volunteers)? _____

7.    What is the philosophy of your agency regarding braille literacy instruction?

      _____

8.   What is the process by which clients are assessed and referred for braille literacy instruction?

_____

_____

9.   Besides braille literacy instruction, what are the other types of programs offered to clients at your agency?

_____

_____

10.  What is your agency's operating budget for this fiscal year?

_____

_____

11.  What is the operating budget for your braille literacy program, (if you have one).

_____

_____

12.  Do you have someone in a resource development (funding raising) position at your agency?
     Yes _____ No _____ answer question (a) below

     a. If "No" how does your agency raise funds?

     _____

13.  Is the person responsible for fund raising familiar with what is needed to fund a braille literacy program?

     _____

14.  Please provide an organizational chart which clearly identifies where your own position is located.

d. If you provide braille instruction in an agency, do you have adequate space for teaching? Yes _____ No _____

Do you have adequate space to house all your instructional materials and equipment? Yes _____ No _____

e. What types of instructional materials do you use with clients? Please check all that apply.
_____ 1. Published braille curriculum materials.
_____ 2. Teacher made materials
_____ 3. Student's/client's writing
_____ 4. Other (please describe).

_____

_____

f. What published braille curriculum materials do you currently use?

_____

_____

g. What information do you collect and report in client files? Please check all that apply.

_____ 1. Name, address, etc.
_____ 2. Eye condition
_____ 3. Prognosis
_____ 4. Functional Vision Assessment
_____ 5. Literacy related assessment results
_____ 6. Clients' needs and wants with respect to literacy
_____ 7. Progress reports/Achievement results
_____ 8. Individualized Written Rehabilitation Plan
_____ 9. Other (please specify)

_____

_____

h. How are clients referred to you to become students in your braille literacy program?

_____

_____

i. Do you create your own instructional materials for clients?
Yes _____ No _____ If yes, please describe.

_____

_____

j. What braille access technology do you utilize for creation of braille training materials in your braille instructional program?

_____

k. Do you provide instruction in the use of braille access technology to clients?
Yes _____ No _____ If yes, please be specific.

_____

_____

4. What is your agency's philosophy regarding braille literacy instruction for clients?

_____

_____

5. What is the annual budget for the braille literacy program within your agency?

_____

## Project ABLE: Questionnaire for Site Administrators - Post

1.  Name: _____

    Title: _____

    Agency Name and Address: _____

    _____

    _____

    Phone Number: _____

2.  Do you currently have a braille literacy program at your agency?
    Yes _____    No _____

    a. If "Yes" did you use the ABLE materials to establish a braille literacy program at your agency? Yes _____ No _____

    b. What is the total length of time your braille literacy program has been in existence.

    _____

    c. If you do not currently have a braille literacy program at your agency, in what way did you use the Project ABLE materials? _____

    _____

    _____

    _____

3.  How many staff used the Project ABLE materials?

    _____

4.  How involved did you become in the use of the Project ABLE materials by your staff?
    Very involved _____    Somewhat involved _____    Slightly involved _____
    Not at all involved _____

5.  How effective do you feel the Project ABLE materials were in enhancing the quality of your agency's braille literacy program?
    Very effective _____ Somewhat effective _____ Somewhat ineffective _____
    Not at all effective _____ Not applicable _____ (we do not yet have a braille literacy program)

    Please comment: _____ 69 _____

    _____

6. In the past six months has there been any change in the following:

    a. the philosophy of your agency regarding braille literacy instruction?
    No _____ Yes _____ In what way? _____

    _____

    b. the process by which clients are assessed and referred for braille literacy instruction?
    No _____ Yes _____ In what way? _____

    _____

    c. the number of clients being served in your braille literacy program?
    No _____ Yes _____ In what way? _____

    _____

    d. the other types of programs offered to clients at your agency?
    No _____ Yes _____ In what way? _____

    _____

    e. your agency's operating budget per fiscal year?
    No _____ Yes _____ In what way? _____

    _____

    f. the operating budget for your braille literacy program if you have one? _____

    No _____ Yes _____ In what way? _____

    _____

    g. the manner in which your agency does fund raising?
    No _____ Yes _____ In what way?

    _____

7. Do you attribute any of the above changes to piloting the Project ABLE materials?
    No _____ Yes _____ In what way?

    _____

8. Would you recommend that other agency administrators use the Project ABLE materials in their agencies in order to develop or enhance braille literacy instruction?
    No _____ Yes _____ Please comment:

    _____

# Project ABLE: Questionnaire for Braille Literacy Instructors - Post

1. Name: _____

   Title: _____

   Agency name: _____

   Address: _____

   _____

   Phone Number: _____

2. Current Caseload

   a. To how many clients are you currently providing braille literacy instruction?

   _____

   b. What is the usual schedule of braille literacy instruction for a client?
   (i.e. _____ sessions per week of _____ hours per session for _____ weeks).

   c. Where do you provide the instruction for clients? (please check all that apply)
   _____ 1. in our agency
   _____ 2. in client's home
   _____ 3. other (please describe)

   _____

   _____

   d. If you provide braille instruction in an agency, do you have adequate space for teaching?
   Yes _____ No _____

   Do you have adequate space to house all your instructional materials and equipment?
   Yes _____ No _____

e. What types of instructional materials do you use with clients? Please check all that apply.

_____  1. Published braille curriculum materials.
_____  2. Teacher made materials
_____  3. Student's/client's writing
_____  4. Other (please describe).

_____

_____

f. What published braille curriculum materials do you currently use?

_____

_____

g. What information do you collect and report in client files? Please check all that apply.

_____  1. Name, address, etc.
_____  2. Eye condition
_____  3. Prognosis
_____  4. Functional Vision Assessment
_____  5. Literacy related assessment results
_____  6. Client's needs and wants with respect to literacy
_____  7. Progress reports/Achievement results
_____  8. Individual Written Rehabilitaiton Plan
_____  9. Other (please specify)

_____

_____

h. How are clients referred to you to become students in your braille literacy program?

_____

i. Do you create your own instructional materials for clients?
Yes _____    No _____    If yes, please describe.

_____

_____

_____

j.  What braille access technology do you utilize in your braille instructional program?

_____

k.  Do you provide instruction in the use of braille access technology to clients?
Yes _____   No _____   If yes, please be specific.

_____

3.  What is your agency's philosophy regarding braille literacy instruction for clients?

_____

_____

4.  What is the annual budget for the braille literacy program within your agency?

_____

5.  Evaluation of the Project ABLE materials:

a.  Overall did you find the materials useful?
Very useful _____   Somewhat useful _____   Not very useful _____
Not at all useful _____

b.  Did the materials generate any difference in your braille literacy program?  If a difference occurred please describe what the difference was, and how it can be attributed to the use of the materials.

_____

_____

_____

c.  Which sections of the materials did you find most useful and why?

_____

d.  Which sections were the least useful to you and why?

_____

e.  What were the two objectives which you chose for your own professional development during the pilot project?  (If you feel comfortable attaching your self-rating it will be kept confidential.)

_____

_____

_____

_____

f.  Were you able to improve your ability in the two objectives you selected?  Please give details for each.

_____

_____

_____

_____

g.  Would you recommend that other teachers who are responsible for braille literacy instruction use these materials?  Yes _____ No _____
Why?

_____

_____

h.  Do you intend to continue to use the materials after the pilot period is over?
Yes _____   No _____

_____

i.  If yes, in what manner do you intend to use them?

_____

_____

_____

j. What could be added to the Project ABLE materials to make them more useful to you?

_____

_____

_____

k. Has anything regarding your braille literacy instruction of clients changed as a result of using Project ABLE materials? Yes _____ No _____

Please comment:

_____

_____

_____

l. Please comment in general on your feelings about having been involved in the Project ABLE piloting of the ABLE-G materials.

_____

_____

_____

## Adult Braille Literacy Empowerment

## QUESTIONNAIRES RETURNED BY SITE PARTICIPANTS

| AGENCY | ADMINISTRATOR PRE | ADMINISTRATOR POST | TEACHER PRE | TEACHER POST | OTHER |
|---|---|---|---|---|---|
| Site #1 - Administrator A | X | X | | | |
| Teacher A | | | X | X | |
| Teacher B | | | X | X | Ratings |
| Teacher C | | | X | X | |
| Teacher D | | | X | X | |
| Teacher E | | | X | X | Ratings |
| Teacher F | | | X | X | Ratings |
| Site # 2 - Administrator A | X | X | | | |
| Teacher A | | | X | X | Ratings |
| Teacher B | | | X | X | |
| Teacher C | | | X | X | Ratings |
| Site #3 - Administrator A | X | X | | | |
| Teacher A | | | X | X | |
| Teacher B | | | X | X | |
| Site #4 - Administrator A | X | X | N/A | N/A | |
| Site #5 - Administrator A | X | X | | | |
| Teacher A | | | | | |
| Teacher B | | | X | X | |
| Teacher C | | | | | |
| Site #6 - Administrator A | X | X | | | |
| Teacher A | | | X | X | Ratings |
| Site #7 - Administrator A | | X | | | |
| Site #7 - Administrator B | X | | | | |
| Site #8 - Administrator A | X | X | | | |
| Site #8 - Administrator B | | X | | | |
| Teacher A | | | | | |

Administrator Pre  - 8          Teacher Pre  -  13
Administrator Post - 9          Teacher Post - 13

# APPENDIX P

# PREPARARTION & EXPERIENCE OF INSTRUCTORS

## Adult Braille Literacy Empowerment

### PREPARATION AND EXPERIENCE IN TEACHING BRAILLE LITERACY
### Sixteen of Instructors of Braille Literacy

| INSTRUCTOR | PREPARATION | EXPERIENCE |
|:---:|:---|:---:|
| 1 | University of Alabama - Birmingham | 3 Years |
| 2 | No Formal Training | 6 Years |
| 3 | University of Arkansas - Little Rock | 17 Years |
| 4 | Technical Facility (not identified) | 6 Years |
| 5 | Library of Congress Proofreader | 12 Years |
| 6 | A Georgia Training Facility | 1 Year |
| 7 | University of Arkansas - Little Rock | 20 Years |
| 8 | No Formal Training (Learned Braille as a young child) | 30 Years |
| 9 | University of Arkansas - Little Rock | 5 Years |
| 10 | Hadley School for the Blind - Correspondence | 1 Year |
| 11 | No Formal Training | 1 Year |
| 12 | San Francisco State University | 5 Months |
| 13 | No Response | No Response |
| 14 | No Response | No Response |
| 15 | Boston College | 3 Years |
| 16 | Certified Teacher of English (M.A.) (Learned Braille as a young child) | 20 years |

## Adult Braille Literacy Empowerment

### PERSONAL READING MEDIA OF SIXTEEN BRAILLE INSTRUCTORS
### AND BRAILLE CODE COMPETENCY

| INSTRUCTOR | READING MEDIUM | OTHER READING MEDIA | BRAILLE CODE COMPETENCY |
|---|---|---|---|
| 1 | Print | No Response | Grades I, II |
| 2 | Braille | Tape, Computer | Grades I , II; Nemeth Numbers |
| 3 | Speech | Braille | Grades I, 1 1/2, II, Music, Basic Computer, Basic Nemeth |
| 4 | Grade 1 Braille | Print, Large Print, Tapes | Grade 1 |
| 5 | Braille | Tapes | Literary Braille |
| 6 | Large Type | Tapes | Grades I, II, II, & Nemeth |
| 7 | Braille | Print with Magnifier | Grades I, II |
| 8 | Braille | Computers, Scanners, Tapes, Personal Reader | Grades I, II, III, Music, Computer, Nemeth |
| 9 | Print | Tape | Grade II |
| 10 | Audio, Tape | 18 Pt. Type, Grade I Braille | Grade I |
| 11 | Braille, Tape | Print with visual aid | Grades I, II |
| 12 | Print | No Response | Grades I, II |
| 13 | No Response | No Response | No Response |
| 14 | No Response | No Response | No Response |
| 15 | Print | Large Print | Grades I, II |
| 16 | Braille | Speech Output, Tape | Grades I, II, Nemeth |

| SUMMARY | | |
|---|---|---|
| Print, LT - 5 | Grade I - 14 | Nemeth - 4 |
| Braille - 7 | Grade II - 11 | Music - 2 |
| Audio - 2 | Grade III - 1 | Computer - 4 |

# APPENDIX Q

# SCHEDULE FOR BRAILLE INSTRUCTION

# Appendix Q

## Adult Braille Literacy Empowerment

## SCHEDULE FOR BRAILLE INSTRUCTION BY SIXTEEN INSTRUCTORS

| INSTRUCTOR | SESSIONS | HOURS | WEEKS | TOTAL HOURS |
|---|---|---|---|---|
| 1 | NR | NR | NR | NR |
| 2 | Monthly | 1 hour | Dependent on student needs | 1 hour Monthly |
| 3 | Weekly | 1 hour | Dependent on student needs | 1 hour Weekly |
| 4 | Monthly | 2 hours | 24 weeks | 48 hours |
| 5 | Bi-weekly | 1 hour | 52 weeks | 26 hours |
| 6 | Weekly | 2 hours | 3 - 4 weeks | 6 - 8 hours |
| 7 | Twice weekly | 1 hour | 16 weeks | 32 hours |
| 8 | Daily | 3/4 hour | 16 - 24 weeks | 80 - 100 hours |
| 9 | Twice weekly | 1 hour | 16 weeks | 32 hours |
| 10 | 3 times/week | 1 hour | 8 weeks | 24 hours |
| 11 | 3 times/week | 1 hour | Dependent on student needs | 1 -24 hours |
| 12 | Weekly | 2 hours | 10 weeks | 20 hours |
| 13 | No Response | No Response | No Response | No Respone |
| 14 | No Response | No Response | No Response | No Response |
| 15 | Weekly | 1 hour | 20 - 40 weeks | 20 - 40 hours |
| 16 | Weekly | 1 hour | 15 weeks | 15 hours |

| SITE FOR BRAILLE INSTRUCTION: | |
|---|---|
| Center | 5 |
| Home | 10 |
| Local Facilty | 2 |
| (i.e., Senior Center) | 2 |

# APPENDIX R

# STUDENT REFERRAL &
# RECORDS

## Adult Braille Literacy Empowerment

# LITERACY RELATED STUDENT INFORMATION ON FILE
# IN EIGHT REHABILITATION AGENCIES

| Instructor | Functional Vision Assessment | Literacy Assessment | Client's Literacy Needs/Wishes | Literacy Achievement | IWRP | Other |
|---|---|---|---|---|---|---|
| 1 | X | | X | X | X | |
| 2 | X | | X | X | X | |
| 3 | X | | X | X | X | |
| 4 | X | | X | X | X | |
| 5 | X | | X | X | X | |
| 6 | X | | | X | X | |
| 7 | X | X | X | X | X | |
| 8 | X | X | X | X | X | Lesson Plans |
| 9 | X | X | X | X | X | |
| 10 | | | X | X | | |
| 11 | N/R | | | | | |
| 12 | N/R | | | | | |
| 13 | N/R | | | | | |
| 14 | N/R | | | | | |
| 15 | X | | X | X | | Personal notes |
| 16 | N/R | | | | | |

**Adult Braille Literacy Empowerment**

**SOURCES OF REFERRAL TO EIGHT REHABILITATION AGENCIES
FOR BRAILLE LITERACY INSTRUCTION**

| SOURCE | NUMBER |
|--------|--------|
| Self-Referral | 6 |
| Other Agencies | 5 |
| Rehab Counselors | 5 |
| Case Managers | 2 |
| Social Workers | 2 |
| Doctors | 3 |
| Family Members | 2 |
| Friends | 4 |

# APPENDIX S

# PUBLISHED BRAILLE CURRICULUM MATERIALS

## Adult Braille Literacy Empowerment

## PUBLISHED BRAILLE CURRICULAR MATERIALS

| <u>TITLE</u> | <u>AUTHOR</u> |
|---|---|
| ABC's of Braille | Bernard M. Krebs |
| ABLK Method of Teaching Braille | Bernice G. Robins |
| Beginning Braille | Michael Tobin |
| Beginning Braille for Adults | Mabel Naading, Romona Walhof |
| Braille a Different Approach | Johnette B. Weiss, Jeff Weiss, Bernard Krebs |
| Braille in Brief | Bernard M. Krebs |
| Braille Series 1990 | Illinois Braille Committee |
| Brushing Up on Braille | Pat Robertson |
| English Braille in 40 Lessons | Mary Lou Archer |
| Getting in Touch With Reading | Margaret M. Smith |
| Just Enough to Know Better | Eileen P. Curan |
| Manual for Spanish Braille | Dorothea Goodlin |
| McDuffy Reader | Sharon L. M. Duffy |
| Modern Methods of Teaching Braille | Claudell S. Stocker |
| Read Again | Hilda Caton, Eleanor Pester, Eddy Jo Bradley |
| Reading with Feeling | Anne V. Strauss |
| Step By Step Braille | Bernard M. Krebs |
| Teaching Braille Reading to Adventitiously Blinded Individuals | Grace D. Napier |
| The World at My Fingertips | Norma L. Schecter |
| | |
| Braille Series 1960 | Illinois Braille Committee |
| Braille Letter Drill | |
| Braille Too | Hepker |
| Instruction Manual for Braille Transcribing | Dorf and Scharry |
| Kansas Braille Reading Readiness Book | Stocker |
| Primer of Braille Music | Jenkins and Spanner |
| A Training Manual for Codes of Literacy: A study Guide | San Francisco State University |
| Other APH Adult Braille Materials | |

**Adult Braille Literacy Empowerment**

# INSTRUCTIONAL MATERIALS
# OF SIXTEEN BRAILLE INSTRUCTORS

## TYPE OF INSTRUCTIONAL MATERIALS USED

| | |
|---|---|
| 12 | Published Braille Curriculum Materials |
| 11 | Teacher-made Materials |
| 8 | Student's/Client's Writing |
| 3 | Other - Tangible aids, tapes |

## TYPES OF MATERIALS CREATED

Worksheets
Supplemental exercises
Pre- and Post-test materials
Flashcards
Reading materials - focusing on problem areas
Booklets

Recipes
Telephone file cards
Address file cards
Labels

Braille playing cards
Games

**Adult Braille Literacy Empowerment**

# PUBLISHED CURRICULA USED BY SIXTEEN INSTRUCTORS

| TITLE | AUTHOR | USED BY NUMBER OF INSTRUCTOR |
|---|---|---|
| ABC's of Braille | Bernard M. Krebs | 1 |
| Braille a Different Approach | Johnette B. Weiss, Jeff Weiss, Bernard Krebs | 1 |
| Braille in Brief | Bernard M. Krebs | 2 |
| Braille Letter Drill | | 2 |
| Braille Series 1960 | Illinois Braille Committee | 3 |
| Braille Series 1990 | Illinois Braille Committee | 2 |
| Braille Too | Hepker | 1 |
| Getting in Touch With Reading | Margaret M. Smith | 1 |
| Kansas Braille Reading Readiness Book | Claudell S. Stocker | 1 |
| Modern Methods of Teaching Braille | Claudell S. Stocker | 2 |
| Read Again | Hilda Caton, Eleanor Pester, Eddy Jo Bradley | 1 |

## OTHER

| | | |
|---|---|---|
| Instruction Manual for Braille Transcribing | Dorf and Scharry | 2 |
| Primer of Braille Music | Jenkins and Spanner | 1 |
| Training Manual for Codes of Literacy: A study Guide | San Francisco State Univ. | 1 |
| Other APH Adult Braille Materials | | 1 |

## Adult Braille Literacy Empowerment

## BRAILLE ACCESS TECHNOLOGY (BAT)
## USED BY SIXTEEN INSTRUCTORS

| Braille Access Technology Used | Number of Instructors Who Use BAT |
|---|---|
| Braillewriter | 5 |
| Slate & Stylus | 4 |
| Braille 'n Speak | 2 |
| Romeo Braille Printer | 1 |
| VersaPoint Printer | 2 |
| Unidentified Braille Printer | 3 |
| Duxbury Translation Program | 1 |
| WordPerfect | 2 |
| BEX | 1 |
| Jaws | 1 |
| Computer Brailler | 1 |
| No Training - No Support | 1 |
| None | 3 |

## PROVISION OF INSTRUCTION IN BRAILLE TECHNOLOGY
## IN EIGHT REHABILITATION AGENCIES

### YES - 2        NO - 11

| TECHNOLOGY | NUMBER |
|---|---|
| Braille 'n Speak | 2 |
| Duxbury | 1 |
| Romeo Printer | 1 |
| WordPerfect | 1 |
| Megadots | 1 |
| Would like to provide | 1 |
| Offered in other units of the center | 1 |

# APPENDIX T

# REVIEW OF BRAILLE ACCESS TECHNOLOGY

# APPENDIX F

# REVIEW OF BROADBAND ACCESS TECHNOLOGY

**Adult Braille Literacy Empowerment**

## REVIEW OF BRAILLE ACCESS TECHNOLOGY

| <u>CATEGORIES</u> | <u>NUMBER REVIEWED</u> |
|---|---|
| Braille Notetakers/Writers | 12 |
| Braille Printers | 15 |
| Braille Translation Hardware | 2 |
| Braille Translation Software | 12 |
| Refreshable Braille Displays | 36 |

## INFORMATION PROVIDED

| | |
|---|---|
| Name | Dimensions * |
| Distributors/Producer | Weight * |
| Cost | Power * |
| Warranty | Speed * |
| Unique Features | Memory * |
| | Compatibility * |

* If Applicable

# APPENDIX U

# EVALUATION OF ABLE-G MATERIALS

## Adult Braille Literacy Empowerment

# EVALUATION OF THE ABLE-G MATERIALS
## By Instructors in ABLE Pilot Study

## Usefulness of Materials

KEY:    very useful    6
somewhat useful    4
not very useful    0
not at all useful    1
no response    5

| ABLE-G COMPONENTS | MOST USEFUL | LEAST USEFUL |
|---|---|---|
| How to Use the ABLE-G | 0 | 0 |
| Program Guidelines | 0 | 0 |
| Instructor Objectives | 2 | 1 |
| Strategies for Acquiring Instructor Objectives | 3 | 0 |
| Annotated Bibliography | 2 | 1 |
| Review of Braille Curriculum Materials | 2 | 0 |
| Review of Braille Access Technology | 2 | 1 |
| Case Studies | 2 | 1 |
| Creating a Proposal | 0 | 3 |
| Appendices | 3 | 0 |
| All | 2 | 1 |

| QUESTIONS | Yes | No | N/R | Total |
|---|---|---|---|---|
| Did you find the materials useful? | 10 | 1 | 5 | 16 |
| Did the materials generate any difference in your braille literacy program? | 7 | 4 | 5 | 16 |
| Were you able to improve your ability in the two objectives you selected? | 9 | 1 | 6 | 16 |
| Would you recommend that other teachers who are responsible for braille literacy instruction use these materials? | 11 | 0 | 5 | 16 |
| Do you intend to continue to use the materials after the pilot period is over? | 9 | 2 | 5 | 16 |
| Has anything regarding your braille literacy instruction of clients change as a result of using Project ABLE materials? | 7 | 3 | 6 | 16 |

## Adult Braille Literacy Empowerment

## CHANGES IN EIGHT BRAILLE LITERACY PROGRAMS
## DUE TO USE OF ABLE-G
## As Reported by Administrators

| QUESTIONS | Yes | No | Not Applicable | No Response |
|---|---|---|---|---|
| During the pilot study has there been any change in the philosophy of your agency regarding braille literacy instruction? | 2 | 5 | 3 | |
| During the pilot study has there been any change in the process by which clients are assessed and referred for braille literacy instruction? | 1 | 6 | 3 | |
| During the pilot study has there been any change in the number of clients being served in your braille literacy program? | 4 | 3 | 3 | |
| During the pilot study has there been any change in the other types of programs offered to clients at your agency? | 2 | 4 | 3 | 1 |
| During the pilot study has there been any change in your agency's operating budget? | 2 | 5 | 3 | |
| During the pilot study has there been any change in your agency's braille literacy program if you have one? | 2 | 5 | 3 | |
| During the pilot study has there been any change in the manner in which your agency does fund raising? | 0 | 7 | 3 | |
| Do you attribute any of the above changes to piloting the Project ABLE materials? | 2 | 5 | 3 | |
| Would you recommend that other agency administrators use the ABLE-G materials in their agencies in order to develop or enhance braille literacy instruction? | 7 | 0 | 3 | |

# APPENDICES

# V - X

## Adult Braille Literacy Empowerment

### OBJECTIVES SELECTED FOR DEVELOPMENT
### BY ELEVEN INSTRUCTORS

| CATEGORIES | NUMBER WHO IMPLEMENTED THIS OBJECTIVE |
|---|---|
| **TECHNOLOGY RELATED** | |
| Access Technology | 4 |
| Computer Skills | 3 |
| Computer Braille | 1 |
| Braille 'n Speak | 1 |
| Braille Translation | 1 |
| **TOTAL** | **10** |
| **BRAILLE RELATED** | |
| Braille Skills | 3 |
| Grade III Braille | 1 |
| Curriculum | 2 |
| **TOTAL** | **6** |
| **ADULT RELATED** | |
| Adult Learning | 1 |
| Gerontology | 1 |
| Adult Braille Instruction | 1 |
| **TOTAL** | **3** |
| **SPECIAL POPULATION** | |
| Head Injuries | 1 |
| Severely Physcially Handicapped | 1 |
| **TOTAL** | **2** |
| **PROFESSIONALISM** | |
| Becoming/Being Professional | 1 |
| **GRAND TOTAL** | **22** |

| IMPROVEMENT: | |
|---|---|
| Yes - 8 | No - 1 |
| Somewhat - 1 | NR - 1 |

# Appendix W

## Adult Braille Literacy Empowerment

## ADMINISTRATORS USE OF THE ABLE-G

KEY:  A    Very
      B    Somewhat
      C    Slightly
      D    Not at all
      E    Not Applicable
      F    No Response

| QUESTIONS | YES | NO | A | B | C | D | E | F |
|-----------|-----|-----|---|---|---|---|---|---|
| How involved did you become in the use of Project ABLE materials by your staff? | | | 2 | 3 | 3 | 2 | | |
| How effective do you feel the Project ABLE materials were in enhancing the quality of your agency's braille literacy program? | | | 2 | 4 | 0 | 1 | 1 | 2 |
| Do your currently have a braille literacy program at your agency? | 8 | 2 | | | | | | |
| Is your braille program less than two years old? | 4 | | | | | | | 1 |
| Is your braille program more than 10 years old? | 4 | | | | | | | 1 |
| Did you use the ABLE materials to establish a braille literacy program? | 3 | 6 | | | | | | 1 |
| Do you attribute any changes to piloting the Project ABLE materials? | 2 | 5 | | | | | 3 | |
| Would you recommend that other agency administrators use the Project ABLE materials in their agencies? | 8 | | | | | | 1 | |

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Adult Braille Literacy Empowerment

## ADMINISTRATORS USE OF THE ABLE-G

KEY:　A　Very
　　　　B　Somewhat
　　　　C　Slightly
　　　　D　Not at all
　　　　E　Not Applicable
　　　　F　No Response

| QUESTIONS | YES | NO | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|
| Do you do fundraising? | 1 | 9 | | | | | | |
| Do you have someone in a resource development position at your agency? | 4 | 3 | | | | | | |
| Is the person responsible for fundraising familiar with what is needed to fund a braille literacy program? | 2 | 1 | | | | | | 3 |

## Adult Braille Literacy Empowerment

# FUTURE USE OF ABLE-G

Do you intend to continue to use the materials after the pilot period is over?

Yes = 9        No = 2        No Response = 5

| FUTURE USE | NUMBER RESPONDING |
|---|---|
| To improve instructor objectives. | 2 |
| To use strategies to gain competency. | 1 |
| To select suitable curriculum materials. | 5 |
| To read articles. | 3 |
| To use case studies as a resource. | 1 |
| To meet client's individual needs. | 1 |
| To teach Braille 'n Speak. | 1 |
| No Response | 2 |

## SUGGESTED ADDITIONS TO ABLE-G

| | |
|---|---|
| Nothing | 4 |
| Detailed description of the curricula text | 3 |
| Techniques for special populations | 2 |
| Simplify the instructional materials | 1 |
| No Response | 1 |

# APPENDIX Y

# FEELINGS & PHILOSOPHY

Adult Braille Literacy Empowerment

# Project ABLE: Post-Questionnaire/Braille Literacy Instructors

5.    1.    Please comment in general on your feelings about having been involved in the Project ABLE piloting of the ABLE-G materials.

(Code #1-A) *The ABLE project has really made me aware of how important literacy is for adults.  I have become a strong supporter of braille literacy.  I appreciate the opportunity to participate in the project.  I enjoy sharing the joy of reading a braille book to others to try to get them to learn braille.*

(Code #1-B) *Excellent beginning, good notebook.*

(Code #1-C) *I have very much enjoyed participating in the Project ABLE piloting of the ABLE-G materials.  The materials have enhanced my resources and motivated me to improve my teaching skills by broadening my areas of competence.*

(Code #1-D) *Gives good ideas on professional development and in use of materials available.*

(Code #1-E) *It was a pleasure to participate.  I regret not having a student for the full time period.*

(Code #1-F) *I enjoyed it very much and felt I learned a lot.  I think even though the project ends, I will still keep learning with all the information it gave me.*

(Code #2-A) *Positive.*
(Code #2-C) no comments

(Code #3-B) *No comments.*

(Code #5-A) *I was a little unclear as to how this would change or improve my teaching except for giving me more information to review.*

(Code #6-A) *I'm fortunate to have the materials since I will start a class to teach Braille to adults soon.*

**Adult Braille Literacy Empowerment**

# PHILOSOPHY OF AGENCIES
# REGARDING BRAILLE LITERACY INSTRUCTION

## Administrators and Instructors

The right of each client to learn braille.

Braille provides a tool for independence and self expression.

Supports a program of braille literacy.

Instructors have freedom in planning and instruction.

"Enthusiastically endorses braille literacy instruction for
enhancing recreational reading, meeting individual needs
and . . ."

# APPENDIX Z

# PRESENTATIONS & PUBLICATIONS

## Adult Braille Literacy Empowerment

## PRESENTATIONS AND PUBLICATIONS BY ABLE STAFF

### Major Presentations

Wormsley, D. P., and Rex, E. J. The Adult Braille Literacy Empowerment Project. Presented at 1994 Biennial Conference of Association for Education and Rehabilitation for Blind and Visually Impaired (AER), Dallas, TX, July 11, 1994.

Rex, E. J. Reflections on Project ABLE. Presenting at 2nd biennial conference on Literacy for the Disabled, Austin, TX, December 8, 1995.

### Major Publications

Wormsley, D. P. (1995). Research Notes: Project ABLE. Journal of Visual Impairment and Blindness, 89,(1), 90.

Rex, E. J. (1996). In Press. Research Notes: Review of texts and programs for braille instruction to adults. Journal of Visual Impairment and Blindness, Special issue on literacy to published April 1996.